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SAR CHARACTERIZATION AND EVALUATION REPORT

Applicant Name:
Samsung Electronics Co., Ltd.
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Gyeonggi-do, 16677, Korea

Date of Testing:
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Test Site/Location:
Element, Columbia, MD, USA
Document Serial No.:
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FCC ID: **A3LSMS928U**

APPLICANT: **SAMSUNG ELECTRONICS CO., LTD.**

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model(s): SM-S928U, SM-S928U1

Equipment Class	Band & Mode	Tx Frequency	SAR 1g Head (W/kg)	SAR 1g Body-Worn (W/kg)	SAR 1g Hotspot (W/kg)	SAR 10g Phablet (W/kg)
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.97	0.37	0.55	N/A
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	<0.1	0.40	0.87	N/A
PCE	UMTS 850	826.40 - 846.60 MHz	1.19	0.61	0.75	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.12	0.50	1.05	N/A
PCE	UMTS 1900	1852.4 - 1907.6 MHz	<0.1	0.42	1.19	N/A
PCE	LTE Band 71	665.5 - 695.5 MHz	1.05	0.49	0.45	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.84	0.49	0.49	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	1.11	0.58	0.58	N/A
PCE	LTE Band 14	790.5 - 795.5 MHz	1.11	0.61	0.67	N/A
PCE	LTE Band 26	814.7 - 848.3 MHz	0.75	0.54	0.56	N/A
PCE	LTE Band 5	824.7 - 848.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 66	1710.7 - 1779.3 MHz	0.94	0.52	1.20	N/A
PCE	LTE Band 4	1710.7 - 1754.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 25	1850.7 - 1914.3 MHz	1.14	0.39	1.25	2.11
PCE	LTE Band 2	1850.7 - 1909.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 30	2307.5 - 2312.5 MHz	1.20	0.35	1.17	N/A
PCE	LTE Band 7	2502.5 - 2567.5 MHz	1.25	0.37	0.76	N/A
PCE	LTE Band 41	2498.5 - 2687.5 MHz	1.02	0.52	0.82	N/A
PCE	LTE Band 38	2572.5 - 2617.5 MHz	N/A	N/A	N/A	N/A
CBE	LTE Band 48	3552.5 - 3697.5 MHz	1.19	0.31	0.46	N/A
PCE	NR Band n71	665.5 - 695.5 MHz	0.79	0.38	0.49	N/A
PCE	NR Band n12	701.5 - 713.5 MHz	0.61	0.42	0.51	N/A
PCE	NR Band n26	816.5 - 846.5 MHz	0.99	0.57	0.60	N/A
PCE	NR Band n5	826.5 - 846.5 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n70	1697.5 - 1707.5 MHz	1.22	0.56	1.17	N/A
PCE	NR Band n66	1712.5 - 1777.5 MHz	1.03	0.55	1.05	N/A
PCE	NR Band n25	1852.5 - 1912.5 MHz	1.05	0.58	1.26	1.79
PCE	NR Band n2	1852.5 - 1907.5 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n30	2307.5 - 2312.5 MHz	1.18	0.38	0.96	N/A
PCE	NR Band n7	2502.5 - 2567.5 MHz	0.63	0.47	0.91	N/A
PCE	NR Band n41	2501.01 - 2685 MHz	1.14	0.35	0.56	N/A
PCE	NR Band n38	2575 - 2615 MHz	N/A	N/A	N/A	N/A
CBE	NR Band n48	3555 - 3694.98 MHz	1.02	0.31	0.42	N/A
PCE	NR Band n78	3455.01 - 3544.98 MHz; 3705 - 3795 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n77	3455.01 - 3544.98 MHz; 3705 - 3975 MHz	1.02	0.25	0.57	N/A
DTS	2.4 GHz WiFi	2412 - 2462 MHz	0.89	0.45	0.66	N/A
NII	5 GHz WiFi	U-NII-1: 5180 - 5240 MHz; U-NII-2A: 5260 - 5320 MHz; U-NII-2C: 5500 - 5720 MHz; U-NII-3: 5745 - 5825 MHz; U-NII-4: 5845 - 5885 MHz	0.68	0.44	0.38	1.53
6CD	6 GHz WiFi	U-NII-5: 5935 - 6415 MHz; U-NII-6: 6435 - 6515 MHz; U-NII-7: 6535 - 6875 MHz; U-NII-8: 6895 - 7115 MHz	0.26	<0.1	N/A	0.67
DSS	2.4 GHz Bluetooth	2402 - 2480 MHz	0.38	0.16	0.42	0.45
DXX	NFC	13.56 MHz	N/A	N/A	N/A	<0.1
UWB	UWB	6489.6 - 7987.2 MHz	N/A	N/A	N/A	<0.1
Simultaneous SAR per KDB 690783 D01v01r03			1.39	1.52	1.45	2.43

Equipment Class	Band & Mode	Tx Frequency	APD (W/m^2) Head	APD (W/m^2) Body-Worn	APD (W/m^2) Phablet	Reported PD (W/m^2)
6CD	6 GHz WiFi	U-NII-5: 5935 - 6415 MHz; U-NII-6: 6435 - 6515 MHz; U-NII-7: 6535 - 6875 MHz; U-NII-8: 6895 - 7115 MHz	1.42	0.49	16.00	6.28
UWB	UWB	6489.6 - 7987.2 MHz	N/A	N/A	<0.1	0.63

Note: This revised test report supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

RJ Ortanez
Executive Vice President

The SAR Tick is an initiative of the Mobile & Wireless Forum (MWF). While a product may be considered eligible, use of the SAR Tick logo requires an agreement with the MWF. Further details can be obtained by emailing: sartick@mwfai.info.

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 14	Voice/Data	790.5 - 795.5 MHz
LTE Band 26	Voice/Data	814.7 - 848.3 MHz
LTE Band 5	Voice/Data	824.7 - 848.3 MHz
LTE Band 66	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 30	Voice/Data	2307.5 - 2312.5 MHz
LTE Band 7	Voice/Data	2502.5 - 2567.5 MHz
LTE Band 41	Voice/Data	2498.5 - 2687.5 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
LTE Band 48	Voice/Data	3552.5 - 3697.5 MHz
NR Band n71	Voice/Data	665.5 - 695.5 MHz
NR Band n12	Voice/Data	701.5 - 713.5 MHz
NR Band n26	Voice/Data	816.5 - 846.5 MHz
NR Band n5	Voice/Data	826.5 - 846.5 MHz
NR Band n70	Voice/Data	1697.5 - 1707.5 MHz
NR Band n66	Voice/Data	1712.5 - 1777.5 MHz
NR Band n25	Voice/Data	1852.5 - 1912.5 MHz
NR Band n2	Voice/Data	1852.5 - 1907.5 MHz
NR Band n30	Voice/Data	2307.5 - 2312.5 MHz
NR Band n7	Voice/Data	2502.5 - 2567.5 MHz
NR Band n41	Voice/Data	2501.01 - 2685 MHz
NR Band n38	Voice/Data	2575 - 2615 MHz
NR Band n48	Voice/Data	3555 - 3694.98 MHz
NR Band n78	Voice/Data	3455.01 - 3544.98 MHz; 3705 - 3795 MHz
NR Band n77	Voice/Data	3455.01 - 3544.98 MHz; 3705 - 3975 MHz
NR Band n258	Data	24250 - 24450 MHz; 24750 - 25250 MHz
NR Band n260	Data	37000 - 40000 MHz
NR Band n261	Data	27500 - 28350 MHz
2.4 GHz WIFI	Voice/Data	2412 - 2462 MHz
5 GHz WIFI	Voice/Data	U-NII-1: 5180 - 5240 MHz U-NII-2A: 5260 - 5320 MHz U-NII-2C: 5500 - 5720 MHz U-NII-3: 5745 - 5825 MHz U-NII-4: 5845 - 5885 MHz
6 GHz WIFI	Voice/Data	U-NII-5: 5935 - 6415 MHz U-NII-6: 6435 - 6515 MHz U-NII-7: 6535 - 6875 MHz U-NII-8: 6895 - 7115 MHz
2.4 GHz Bluetooth	Data	2402 - 2480 MHz
NFC	Data	13.56 MHz
UWB	Data	6489.6 - 7987.2 MHz

1.2 Time-Averaging Algorithm for RF Exposure Compliance

The purpose of this report is to show SAR Characterization of WWAN sub-6/WLAN/BT (Part0) and to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels (Part1).

1.2.1 Nomenclature

Technology	Term	Description
WWAN Sub-6 /WLAN/BT	P_{limit}	Power level that corresponds to the exposure design target (*SAR_design_target)* after accounting for all device design related uncertainties
	P_{max}	Maximum tune up output power
	SAR_design_target	Target SAR level < FCC SAR limit after accounting for all device design related uncertainties
	SAR Char	Table containing *Plimit* for all technologies and bands

1.2.2 Time-Averaged Algorithm

This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature with antenna grouping. This feature performs time-averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Refer to Compliance Summary document for detailed description of Qualcomm® Smart Transmit feature (report SN could be found in Section 1.11 – Bibliography).

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target* or *PD_design_target*, below the predefined time-averaged power limit (i.e., P_{limit} for WWAN sub-6/WLAN/BT radio, and *input.power.limit* for 5G mmW NR), for each characterized technology and band. Characterization is achieved by determining P_{limit} for WWAN sub-6/WLAN/BT that corresponds to the exposure design targets after accounting for all device design related uncertainties, i.e., SAR_design_target (<FCC SAR Limit) for sub-6 radio. The SAR characterization is denoted as SAR char in this report (see SAR Summary Section and Part 0 SAR Test Results for P_{limit} Calculations Appendix).

Smart Transmit allows the device to transmit at higher power instantaneously, as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{limit}. Below table shows P_{limit} EFS settings and maximum tune up output power P_{max} configured for this EUT for various transmit conditions (Device State Index DSI). Note that the device uncertainty for WWAN sub-6/WLAN/BT is 1.0dB for this EUT.

The maximum time-averaged output power (dBm) for any WWAN sub-6/WLAN/BT technology, band, and DSI is the minimum of ("P_{limit} EFS" and "Maximum tune up output power P_{max}") + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D01v06.

Measurement Condition: All conducted power and SAR measurements in this report (Part 1 test) were performed by setting *Reserve_power_margin* (Smart Transmit EFS entry) to 0dB.

1.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

Note: Targets for 802.11ax/be RU operations can be found in 802.11ax/be RU SAR Exclusion Appendix.

1.3.1 Licensed Output Power

GSM/GPRS/EDGE 850										
Antenna E										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	Max Allowed Power	33.0	33.0	31.5	30.0	28.0	27.5	25.5	24.5	24.5
	Nominal	32.0	32.0	30.5	29.0	27.0	26.5	24.5	23.5	23.5
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	33.0	33.0	31.5	30.0	28.0	27.5	25.5	24.5	24.5
	Nominal	32.0	32.0	30.5	29.0	27.0	26.5	24.5	23.5	23.5
DSI = 1 (Head)	Max Allowed Power	32.0	32.0	29.0	27.2	26.0	27.5	25.5	24.5	24.5
	Nominal	31.0	31.0	28.0	26.2	25.0	26.5	24.5	23.5	23.5
GSM/GPRS/EDGE 850										
Antenna A										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	Max Allowed Power	33.5	33.5	32.0	30.5	28.5	28.0	26.0	25.0	25.0
	Nominal	32.5	32.5	31.0	29.5	27.5	27.0	25.0	24.0	24.0
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	33.5	33.5	32.0	30.5	28.5	28.0	26.0	25.0	25.0
	Nominal	32.5	32.5	31.0	29.5	27.5	27.0	25.0	24.0	24.0
DSI = 1 (Head)	Max Allowed Power	33.5	33.5	32.0	30.5	28.5	28.0	26.0	25.0	25.0
	Nominal	32.5	32.5	31.0	29.5	27.5	27.0	25.0	24.0	24.0
GSM/GPRS/EDGE 1900										
Antenna A										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Pmax	Max Allowed Power	30.0	30.0	29.0	27.0	25.5	27.0	25.0	24.5	24.5
	Nominal	29.0	29.0	28.0	26.0	24.5	26.0	24.0	23.5	23.5
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	29.0	29.0	26.0	24.2	23.0	27.0	25.0	24.2	23.0
	Nominal	28.0	28.0	25.0	23.2	22.0	26.0	24.0	23.2	22.0
DSI = 1 (Head)	Max Allowed Power	30.0	30.0	29.0	27.0	25.5	27.0	25.0	24.5	24.5
	Nominal	29.0	29.0	28.0	26.0	24.5	26.0	24.0	23.5	23.5

For GSM, the above powers listed are GSM burst average values.

UMTS Band 5 (850 MHz)					
Antenna E					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	24.5	23.5	23.5	23.5
	Nominal	23.5	22.5	22.5	22.5
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	24.5	23.5	23.5	23.5
	Nominal	23.5	22.5	22.5	22.5
DSI = 1 (Head)	Max Allowed Power	22.5	21.5	21.5	21.5
	Nominal	21.5	20.5	20.5	20.5

UMTS Band 5 (850 MHz)					
Antenna A					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
DSI = 1 (Head)	Max Allowed Power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0

UMTS Band 4 (1750 MHz)					
Antenna A					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	20.0	19.0	19.0	19.0
	Nominal	19.0	18.0	18.0	18.0
DSI = 1 (Head)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0

UMTS Band 2 (1900 MHz)					
Antenna A					
Power Level		Modulated Average Output Power			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Pmax	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 0 (Body-Worn, Hotspot, or Phablet)	Max Allowed Power	19.0	18.0	18.0	18.0
	Nominal	18.0	17.0	17.0	17.0
DSI = 1 (Head)	Max Allowed Power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0

Mode / Band	Antenna		Modulated Average Output Power (in dBm)		
			Pmax	DSI = 0 (Body-Worn, Hotspot, or Phablet)	DSI = 1 (Head)
LTE Band 71	A	Max Allowed Power	25.0	25.0	25.0
		Nominal	24.0	24.0	24.0
LTE Band 71	E	Max Allowed Power	24.5	24.5	23.8
		Nominal	23.5	23.5	22.8
LTE Band 12	A	Max Allowed Power	25.3	25.3	25.3
		Nominal	24.3	24.3	24.3
LTE Band 12	E	Max Allowed Power	24.8	24.8	23.0
		Nominal	23.8	23.8	22.0
LTE Band 13	A	Max Allowed Power	25.0	25.0	25.0
		Nominal	24.0	24.0	24.0
LTE Band 13	E	Max Allowed Power	24.5	24.5	24.0
		Nominal	23.5	23.5	23.0
LTE Band 14	A	Max Allowed Power	25.3	25.3	25.3
		Nominal	24.3	24.3	24.3
LTE Band 14	E	Max Allowed Power	24.8	24.8	23.0
		Nominal	23.8	23.8	22.0
LTE Band 26/5	E	Max Allowed Power	24.5	24.5	22.0
		Nominal	23.5	23.5	21.0
LTE Band 26/5	A	Max Allowed Power	25.0	25.0	25.0
		Nominal	24.0	24.0	24.0
LTE Band 66/4	A	Max Allowed Power	24.5	19.5	24.5
		Nominal	23.5	18.5	23.5
LTE Band 66/4	F	Max Allowed Power	24.5	21.5	19.5
		Nominal	23.5	20.5	18.5
LTE Band 25/2	A	Max Allowed Power	24.5	19.0	24.5
		Nominal	23.5	18.0	23.5
LTE Band 25/2	F	Max Allowed Power	24.5	21.0	19.5
		Nominal	23.5	20.0	18.5
LTE Band 30	F	Max Allowed Power	23.5	21.0	19.0
		Nominal	22.5	20.0	18.0
LTE Band 30	A	Max Allowed Power	23.5	20.5	23.5
		Nominal	22.5	19.5	22.5
LTE Band 7	B	Max Allowed Power	24.0	20.5	24.0
		Nominal	23.0	19.5	23.0
LTE Band 7	F	Max Allowed Power	24.0	20.5	17.0
		Nominal	23.0	19.5	16.0
LTE Band 41/38 PC3	B	Max Allowed Power	25.0	22.5	25.0
		Nominal	24.0	21.5	24.0
LTE Band 41/38 PC3	F	Max Allowed Power	25.0	22.5	19.5
		Nominal	24.0	21.5	18.5
LTE Band 41 PC2	B	Max Allowed Power	26.7	24.1	26.7
		Nominal	25.7	23.1	25.7
LTE Band 41 PC2	F	Max Allowed Power	26.7	24.1	21.1
		Nominal	25.7	23.1	20.1
LTE Band 48	F	Max Allowed Power	23.5	23.0	19.5
		Nominal	22.5	22.0	18.5

For LTE TDD, the above powers listed are TDD burst average values.

Mode / Band	Antenna		Modulated Average Output Power (in dBm)		
			Pmax	DSI = 0 (Body-Worn, Hotspot, or Phablet)	DSI = 1 (Head)
NR Band n71	A	Max Allowed Power	25.0	25.0	25.0
		Nominal	24.0	24.0	24.0
NR Band n71	E	Max Allowed Power	24.5	24.5	23.0
		Nominal	23.5	23.5	22.0
NR Band n12	A	Max Allowed Power	25.3	25.3	25.3
		Nominal	24.3	24.3	24.3
NR Band n12	E	Max Allowed Power	24.8	24.8	22.0
		Nominal	23.8	23.8	21.0
NR Band n26/n5	E	Max Allowed Power	24.5	24.5	22.0
		Nominal	23.5	23.5	21.0
NR Band n26/n5	A	Max Allowed Power	25.0	25.0	25.0
		Nominal	24.0	24.0	24.0
NR Band n70	A	Max Allowed Power	24.0	20.0	24.0
		Nominal	23.0	19.0	23.0
NR Band n70	F	Max Allowed Power	24.0	22.5	20.0
		Nominal	23.0	21.5	19.0
NR Band n66	A	Max Allowed Power	24.5	19.5	24.5
		Nominal	23.5	18.5	23.5
NR Band n66	F	Max Allowed Power	24.5	21.5	19.5
		Nominal	23.5	20.5	18.5
NR Band n25/n2	A	Max Allowed Power	24.5	19.0	24.5
		Nominal	23.5	18.0	23.5
NR Band n25/n2	F	Max Allowed Power	24.5	21.0	19.5
		Nominal	23.5	20.0	18.5
NR Band n30	F	Max Allowed Power	23.5	21.0	19.0
		Nominal	22.5	20.0	18.0
NR Band n30	A	Max Allowed Power	23.5	20.5	23.5
		Nominal	22.5	19.5	22.5
NR Band n7	B	Max Allowed Power	24.0	20.5	24.0
		Nominal	23.0	19.5	23.0
NR Band n7	F	Max Allowed Power	24.0	20.4	17.0
		Nominal	23.0	19.4	16.0
NR Band n41 PC2 (Path 1)	F	Max Allowed Power	27.0	20.0	17.5
		Nominal	26.0	19.0	16.5
NR Band n41 PC2 (Path 1)	B	Max Allowed Power	23.0	18.5	20.0
		Nominal	22.0	17.5	19.0
NR Band n41 PC2 (Path 1)	E	Max Allowed Power	24.0	18.0	18.0
		Nominal	23.0	17.0	17.0
NR Band n41 PC2 (Path 1)	D	Max Allowed Power	22.0	17.5	17.5
		Nominal	21.0	16.5	16.5
NR Band n41 PC2 (Path 2)	B	Max Allowed Power	27.0	20.5	22.0
		Nominal	26.0	19.5	21.0
NR Band n41 PC2 (Path 2)	F	Max Allowed Power	21.5	18.0	16.0
		Nominal	20.5	17.0	15.0
NR Band n41 PC2 (Path 2)	D	Max Allowed Power	23.0	18.0	18.0
		Nominal	22.0	17.0	17.0
NR Band n41 PC2 (Path 2)	E	Max Allowed Power	18.0	15.0	15.0
		Nominal	17.0	14.0	14.0
NR Band n38	F	Max Allowed Power	25.0	20.0	17.5
		Nominal	24.0	19.0	16.5
NR Band n38	B	Max Allowed Power	25.0	20.5	22.0
		Nominal	24.0	19.5	21.0
NR Band n48	F	Max Allowed Power	23.5	21.0	17.5
		Nominal	22.5	20.0	16.5
NR Band n48	C	Max Allowed Power	17.5	15.5	12.5
		Nominal	16.5	14.5	11.5
NR Band n48	I	Max Allowed Power	22.0	20.0	17.0
		Nominal	21.0	19.0	16.0
NR Band n48	D	Max Allowed Power	18.0	15.5	12.5
		Nominal	17.0	14.5	11.5
NR Band n78 PC2	F	Max Allowed Power	27.0	19.5	17.0
		Nominal	26.0	18.5	16.0
NR Band n78 PC2	C	Max Allowed Power	21.0	16.0	12.5
		Nominal	20.0	15.0	11.5
NR Band n78 PC2	I	Max Allowed Power	23.5	16.0	12.5
		Nominal	22.5	15.0	11.5
NR Band n78 PC2	D	Max Allowed Power	21.5	15.5	12.0
		Nominal	20.5	14.5	11.0
NR Band n77 PC2	F	Max Allowed Power	27.0	19.5	17.0
		Nominal	26.0	18.5	16.0
NR Band n77 PC2	C	Max Allowed Power	21.0	16.0	12.5
		Nominal	20.0	15.0	11.5
NR Band n77 PC2	I	Max Allowed Power	23.5	18.0	14.5
		Nominal	22.5	17.0	13.5
NR Band n77 PC2	D	Max Allowed Power	21.5	16.0	12.5
		Nominal	20.5	15.0	11.5

For NR TDD, the above powers listed are TDD burst average and framed average values

1.3.2 2.4 GHz WLAN Output Power

The below table is applicable is applicable in the following conditions:

- Pmax

Band	Power Level	IEEE 802.11 Modulated Output Power (in dBm)																																			
		SISO												SISO												SISO in MIMO											
		Antenna H												Antenna J												MIMO											
		b		g		n		ac		ax (SU)		be (SU)		b		g		n		ac		ax (SU)		be (SU)		b (CDD + STBC)		g (CDD + STBC)		n (CDD + STBC, SDM)		ac (CDD + STBC, SDM)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WLAN	2.45 GHz	20.0	19.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	20.0	19.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	20.0	19.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0

The below table is applicable is applicable in the following conditions:

- DSI=0 (Body-worn, Hotspot or Phablet)

Band	Power Level	IEEE 802.11 Modulated Output Power (in dBm)																																			
		SISO												SISO												SISO in MIMO											
		Antenna H												Antenna J												MIMO											
		b		g		n		ac		ax (SU)		be (SU)		b		g		n		ac		ax (SU)		be (SU)		b (CDD + STBC)		g (CDD + STBC)		n (CDD + STBC, SDM)		ac (CDD + STBC, SDM)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WLAN	2.45 GHz	19.0	18.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	19.0	18.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	19.0	18.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0	18.0 ch. 1: 16.0 ch. 11: 16.0	17.0 15.0 15.0

The below table is applicable is applicable in the following conditions:

- DSI=1 (RCV)

Band	Power Level	IEEE 802.11 Modulated Output Power (in dBm)																																			
		SISO												SISO												SISO in MIMO											
		Antenna H												Antenna J												MIMO											
		b		g		n		ac		ax (SU)		be (SU)		b		g		n		ac		ax (SU)		be (SU)		b (CDD + STBC)		g (CDD + STBC)		n (CDD + STBC, SDM)		ac (CDD + STBC, SDM)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WLAN	2.45 GHz	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0	17.0 ch. 1: 16.0 ch. 11: 16.0	16.0 15.0 15.0

1.3.3 5 GHz WLAN Output Power

The below table is applicable is applicable in the following conditions:

- Pmax, DSI=0 (Body-worn, Hotspot or Phablet)

Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																													
		SISO										SISO										SISO in MIMO									
		Antenna H										Antenna E										MIMO									
		a		n		ac		ax (SU)		be (SU)		a		n		ac		ax (SU)		be (SU)		a (CDD + STBC)		n (CDD + STBC, SDM)		ac (CDD + STBC, SDM)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	UNII-1/2A/2C/3/4	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0
5 GHz WIFI (40MHz BW)	UNII-1/2A/2C/3/4			18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0			18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0			18.0	17.0	18.0	17.0	18.0	17.0	18.0	17.0
5 GHz WIFI (80MHz BW)	UNII-1/2A/2C/3/4					18.0	17.0	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5					18.0	17.0	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5					18.0	17.0	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5	18.0 UNII-1: 17.0 UNII-2A: 16.5	17.0 16.0 15.5
5 GHz WIFI (160MHz BW)	UNII-1/2A/2C/3/4					18.0	17.0	18.0 UNII-1/2A: 16.0	17.0 15.0	18.0 UNII-1/2A: 16.0	17.0 15.0					18.0	17.0	18.0 UNII-1/2A: 16.0	17.0 15.0	18.0 UNII-1/2A: 16.0	17.0 15.0					18.0	17.0	18.0 UNII-1/2A: 16.0	17.0 15.0	18.0 UNII-1/2A: 16.0	17.0 15.0

The below table is applicable is applicable in the following conditions:

- DSI=1 (RCV)

Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																													
		SISO										SISO										SISO in MIMO									
		Antenna H										Antenna E										MIMO									
		a		n		ac		ax (SU)		be (SU)		a		n		ac		ax (SU)		be (SU)		a (CDD + STBC)		n (CDD + STBC, SDM)		ac (CDD + STBC, SDM)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	UNII-1/2A/2C/3/4	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5
5 GHz WIFI (40MHz BW)	UNII-1/2A/2C/3/4			16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5			16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5			16.5	15.5	16.5	15.5	16.5	15.5	16.5	15.5
5 GHz WIFI (80MHz BW)	UNII-1/2A/2C/3/4					16.5	15.5	16.5	15.5	16.5	15.5					16.5	15.5	16.5	15.5	16.5	15.5					16.5	15.5	16.5	15.5	16.5	15.5
5 GHz WIFI (160MHz BW)	UNII-1/2A/2C/3/4					16.5	15.5	16.5 UNII-1/2A: 16.0	15.5 15.0	16.5 UNII-1/2A: 16.0	15.5 15.0					16.5	15.5	16.5 UNII-1/2A: 16.0	15.5 15.0	16.5 UNII-1/2A: 16.0	15.5 15.0					16.5	15.5	16.5 UNII-1/2A: 16.0	15.5 15.0	16.5 UNII-1/2A: 16.0	15.5 15.0

1.3.4 6 GHz WLAN Output Power

The below table is applicable is applicable in the following conditions:

- Pmax

Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																	
		SISO						SISO						SISO in MIMO					
		Antenna H						Antenna E						MIMO					
		a		ax (SU)		be (SU)		a		ax (SU)		be (SU)		a (CDD + STBC)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
6 GHz WIFI (20MHz BW) - SP	UNII-5/7	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
6 GHz WIFI (40MHz BW) - SP	UNII-5/7			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0
6 GHz WIFI (80MHz BW) - SP	UNII-5/7			17.0	16.0	17.0	16.0			17.0	16.0	17.0	16.0			17.0	16.0	17.0	16.0
6 GHz WIFI (160MHz BW) - SP	UNII-5/7			17.0	16.0	17.0	16.0			17.0	16.0	17.0	16.0			17.0	16.0	17.0	16.0
6 GHz WIFI (320MHz BW) - SP	UNII-5/7					17.0	16.0					17.0	16.0					17.0	16.0
Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																	
		SISO						SISO						SISO in MIMO					
		Antenna H						Antenna E						MIMO					
		a		ax (SU)		be (SU)		a		ax (SU)		be (SU)		a (CDD + STBC)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
6 GHz WIFI (20MHz BW) - LPI	UNII-5/6/7/8	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0
6 GHz WIFI (40MHz BW) - LPI	UNII-5/6/7/8			13.0	12.0	13.0	12.0			13.0	12.0	13.0	12.0			13.0	12.0	13.0	12.0
6 GHz WIFI (80MHz BW) - LPI	UNII-5/6/7/8			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0
6 GHz WIFI (160MHz BW) - LPI	UNII-5/6/7/8			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0			16.0	15.0	16.0	15.0
6 GHz WIFI (320MHz BW) - LPI	UNII-5/6/7/8					16.0	15.0					16.0	15.0					16.0	15.0

The below table is applicable is applicable in the following conditions:

- DSI=0 (Body-worn or Phablet), DSI=1 (RCV)

Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																	
		SISO						SISO						SISO in MIMO					
		Antenna H						Antenna E						MIMO					
		a		ax (SU)		be (SU)		a		ax (SU)		be (SU)		a (CDD + STBC)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
6 GHz WIFI (20MHz BW) - SP	UNII-5/7	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5	12.5	11.5
6 GHz WIFI (40MHz BW) - SP	UNII-5/7			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (80MHz BW) - SP	UNII-5/7			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (160MHz BW) - SP	UNII-5/7			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (320MHz BW) - SP	UNII-5/7					12.5	11.5					12.5	11.5					12.5	11.5
Mode	Band	IEEE 802.11 Modulated Output Power (in dBm)																	
		SISO						SISO						SISO in MIMO					
		Antenna H						Antenna E						MIMO					
		a		ax (SU)		be (SU)		a		ax (SU)		be (SU)		a (CDD + STBC)		ax (SU) (CDD + STBC, SDM)		be (SU) (CDD + STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
6 GHz WIFI (20MHz BW) - LPI	UNII-5/6/7/8	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0	11.0	10.0
6 GHz WIFI (40MHz BW) - LPI	UNII-5/6/7/8			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (80MHz BW) - LPI	UNII-5/6/7/8			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (160MHz BW) - LPI	UNII-5/6/7/8			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5			12.5	11.5	12.5	11.5
6 GHz WIFI (320MHz BW) - LPI	UNII-5/6/7/8					12.5	11.5					12.5	11.5					12.5	11.5

1.3.5 2.4 GHz Maximum Bluetooth Output Power

The below table is applicable is applicable in the following conditions:

- Pmax, DSI=0 (Body-worn, Hotspot or Phablet)

Mode	Data Rate	Modulated Output Power (in dBm)					
		Single Antenna				Each Chain in Dual Mode	
		Antenna H		Antenna J		MIMO	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
Bluetooth	1Mbps	19.5	18.5	19.5	18.5	14.5	13.5
Bluetooth EDR	2Mbps	16.5	15.5	16.5	15.5	11.5	10.5
Bluetooth EDR	3Mbps	16.0	15.0	16.0	15.0	11.5	10.5
Bluetooth LE	1Mbps	19.5	18.5	19.5	18.5	14.5	13.5
Bluetooth LE	2Mbps	19.5	18.5	19.5	18.5	14.5	13.5
Bluetooth LE	125kbps	11.5	10.5	11.0	10.0	N/A	N/A
Bluetooth LE	500kbps	11.5	10.5	11.0	10.0	N/A	N/A

The below table is applicable is applicable in the following conditions:

- DSI=1 (RCV)

Mode	Data Rate	Modulated Output Power (in dBm)					
		Single Antenna				Each Chain in Dual Mode	
		Antenna H		Antenna J		MIMO	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
Bluetooth	1Mbps	18.5	17.5	18.5	17.5	14.0	13.0
Bluetooth EDR	2Mbps	16.5	15.5	16.5	15.5	11.5	10.5
Bluetooth EDR	3Mbps	16.0	15.0	16.0	15.0	11.5	10.5
Bluetooth LE	1Mbps	18.2	17.2	18.2	17.2	13.7	12.7
Bluetooth LE	2Mbps	18.6	17.6	18.6	17.6	14.1	13.1
Bluetooth LE	125kbps	11.5	10.5	11.0	10.0	N/A	N/A
Bluetooth LE	500kbps	11.5	10.5	11.0	10.0	N/A	N/A

1.4 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. A diagram showing the location of the device antennas can be found in DUT Antenna Diagram & SAR Test Setup Photographs Appendix. Since the display diagonal dimension of this device is > 150 mm and <200 mm, it is considered a “phablet.” Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC filing.

Table 1-1
Device Edges/Sides for SAR Testing

Antenna	Back	Front	Top	Bottom	Right	Left
A	Yes	Yes	No	Yes	Yes	Yes
B	Yes	Yes	No	Yes	Yes	No
C	Yes	Yes	No	Yes	Yes	No
D	Yes	Yes	No	Yes	No	Yes
E	Yes	Yes	Yes	No	Yes	No
F	Yes	Yes	Yes	No	No	Yes
H	Yes	Yes	Yes	No	No	Yes
I	Yes	Yes	No	No	No	Yes
J	Yes	Yes	Yes	No	Yes	No
UWB	Yes	Yes	Yes	No	No	Yes

Note: Particular DUT edges were not required to be evaluated for wireless router SAR or phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III and FCC KDB Publication 648474 D01v06r03. The distances between the transmit antennas and the edges of the device are included in the filing. When wireless router mode is enabled, U-NII-1, U-NII-2A, U-NII-2C, U-NII-4, and WIFI6E operations are disabled.

1.5 Near Field Communications (NFC) Antenna

This DUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in DUT Antenna Diagram & SAR Test Setup Photographs Appendix.

1.6 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be operating simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 procedures.

Table 1-2
Simultaneous Transmission Scenarios

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Notes
1	GSM voice + 2.4 GHz Bluetooth SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
2	GSM voice + 2.4 GHz Bluetooth Dual	Yes	Yes	N/A	Yes	
3	GSM voice + 2.4 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
4	GSM voice + 2.4 GHz WLAN SISO	Yes	Yes	N/A	Yes	
5	GSM voice + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
6	GSM voice + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
7	GSM voice + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
8	GSM voice + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
9	GSM voice + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
10	GSM voice + 2.4 GHz WLAN MIMO + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
11	GSM voice + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
12	GSM voice + 2.4 GHz WLAN MIMO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
13	GSM voice + 2.4 GHz WLAN SISO + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
14	GSM voice + 2.4 GHz WLAN SISO + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
15	GSM voice + 2.4 GHz WLAN SISO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
16	GSM voice + 2.4 GHz WLAN SISO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
17	GSM voice + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
18	GSM voice + 2.4 GHz Bluetooth SISO + 5 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
19	GSM voice + 2.4 GHz Bluetooth SISO + 5 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
20	GSM voice + 2.4 GHz Bluetooth SISO + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
21	GSM voice + 2.4 GHz Bluetooth SISO + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
22	GSM voice + 2.4 GHz Bluetooth Dual + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
23	GSM voice + 2.4 GHz Bluetooth Dual + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
24	GSM voice + 2.4 GHz Bluetooth Dual + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
25	GSM voice + 2.4 GHz Bluetooth Dual + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
26	GSM voice + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
27	GSM voice + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
28	GSM voice + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
29	GSM voice + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
30	UMTS/LTE/NR + 2.4 GHz Bluetooth SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
31	UMTS/LTE/NR + 2.4 GHz Bluetooth Dual	Yes	Yes	N/A	Yes	
32	UMTS/LTE/NR + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
33	UMTS/LTE/NR + 2.4 GHz WLAN SISO	Yes	Yes	Yes	Yes	
34	UMTS/LTE/NR + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
35	UMTS/LTE/NR + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
36	UMTS/LTE/NR + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
37	UMTS/LTE/NR + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
38	UMTS/LTE/NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
39	UMTS/LTE/NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
40	UMTS/LTE/NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
41	UMTS/LTE/NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
42	UMTS/LTE/NR + 2.4 GHz WLAN SISO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
43	UMTS/LTE/NR + 2.4 GHz WLAN SISO + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
44	UMTS/LTE/NR + 2.4 GHz WLAN SISO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
45	UMTS/LTE/NR + 2.4 GHz WLAN SISO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
46	UMTS/LTE/NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
47	UMTS/LTE/NR + 2.4 GHz Bluetooth SISO + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
48	UMTS/LTE/NR + 2.4 GHz Bluetooth SISO + 5 GHz WLAN SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
49	UMTS/LTE/NR + 2.4 GHz Bluetooth SISO + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
50	UMTS/LTE/NR + 2.4 GHz Bluetooth SISO + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
51	UMTS/LTE/NR + 2.4 GHz Bluetooth Dual + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
52	UMTS/LTE/NR + 2.4 GHz Bluetooth Dual + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
53	UMTS/LTE/NR + 2.4 GHz Bluetooth Dual + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
54	UMTS/LTE/NR + 2.4 GHz Bluetooth Dual + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
55	UMTS/LTE/NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
56	UMTS/LTE/NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
57	UMTS/LTE/NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
58	UMTS/LTE/NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
59	LTE + NR	Yes	Yes	N/A	Yes	
60	LTE + NR + 2.4 GHz Bluetooth SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
61	LTE + NR + 2.4 GHz Bluetooth Dual	Yes	Yes	N/A	Yes	
62	LTE + NR + 2.4 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
63	LTE + NR + 2.4 GHz WLAN SISO	Yes	Yes	Yes	Yes	
64	LTE + NR + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
65	LTE + NR + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
66	LTE + NR + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
67	LTE + NR + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
68	LTE + NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
69	LTE + NR + 2.4 GHz WLAN MIMO + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
70	LTE + NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
71	LTE + NR + 2.4 GHz WLAN MIMO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
72	LTE + NR + 2.4 GHz WLAN SISO + 5 GHz WLAN MIMO	Yes	Yes	Yes	Yes	
73	LTE + NR + 2.4 GHz WLAN SISO + 5 GHz WLAN SISO	Yes	Yes	Yes	Yes	
74	LTE + NR + 2.4 GHz WLAN SISO + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
75	LTE + NR + 2.4 GHz WLAN SISO + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
76	LTE + NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
77	LTE + NR + 2.4 GHz Bluetooth SISO + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
78	LTE + NR + 2.4 GHz Bluetooth SISO + 5 GHz WLAN SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
79	LTE + NR + 2.4 GHz Bluetooth SISO + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
80	LTE + NR + 2.4 GHz Bluetooth SISO + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
81	LTE + NR + 2.4 GHz Bluetooth Dual + 5 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
82	LTE + NR + 2.4 GHz Bluetooth Dual + 5 GHz WLAN SISO	Yes	Yes	N/A	Yes	
83	LTE + NR + 2.4 GHz Bluetooth Dual + 6 GHz WLAN MIMO	Yes	Yes	N/A	Yes	
84	LTE + NR + 2.4 GHz Bluetooth Dual + 6 GHz WLAN SISO	Yes	Yes	N/A	Yes	
85	LTE + NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
86	LTE + NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN SISO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
87	LTE + NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
88	LTE + NR + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN SISO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered only on Ant H
89	GPRS/EDGE + 2.4 GHz Bluetooth SISO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
90	GPRS/EDGE + 2.4 GHz Bluetooth Dual	N/A	N/A	N/A	Yes	
91	GPRS/EDGE + 2.4 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
92	GPRS/EDGE + 2.4 GHz WLAN SISO	N/A	N/A	Yes	Yes	
93	GPRS/EDGE + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
94	GPRS/EDGE + 5 GHz WLAN SISO	N/A	N/A	Yes	Yes	
95	GPRS/EDGE + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
96	GPRS/EDGE + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	
97	GPRS/EDGE + 2.4 GHz WLAN MIMO + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
98	GPRS/EDGE + 2.4 GHz WLAN MIMO + 5 GHz WLAN SISO	N/A	N/A	Yes	Yes	
99	GPRS/EDGE + 2.4 GHz WLAN MIMO + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
100	GPRS/EDGE + 2.4 GHz WLAN MIMO + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	
101	GPRS/EDGE + 2.4 GHz WLAN SISO + 5 GHz WLAN MIMO	N/A	N/A	Yes	Yes	
102	GPRS/EDGE + 2.4 GHz WLAN SISO + 5 GHz WLAN SISO	N/A	N/A	Yes	Yes	
103	GPRS/EDGE + 2.4 GHz WLAN SISO + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
104	GPRS/EDGE + 2.4 GHz WLAN SISO + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	
105	GPRS/EDGE + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
106	GPRS/EDGE + 2.4 GHz Bluetooth SISO + 5 GHz WLAN MIMO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
107	GPRS/EDGE + 2.4 GHz Bluetooth SISO + 5 GHz WLAN SISO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
108	GPRS/EDGE + 2.4 GHz Bluetooth SISO + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
109	GPRS/EDGE + 2.4 GHz Bluetooth SISO + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	
110	GPRS/EDGE + 2.4 GHz Bluetooth Dual + 5 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
111	GPRS/EDGE + 2.4 GHz Bluetooth Dual + 5 GHz WLAN SISO	N/A	N/A	N/A	Yes	
112	GPRS/EDGE + 2.4 GHz Bluetooth Dual + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
113	GPRS/EDGE + 2.4 GHz Bluetooth Dual + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	
114	GPRS/EDGE + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN MIMO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
115	GPRS/EDGE + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 5 GHz WLAN SISO	N/A	N/A	Yes^	Yes	^ Bluetooth Tethering is considered only on Ant H
116	GPRS/EDGE + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN MIMO	N/A	N/A	N/A	Yes	
117	GPRS/EDGE + 2.4 GHz Bluetooth Ant H + 2.4 GHz WLAN Ant J + 6 GHz WLAN SISO	N/A	N/A	N/A	Yes	

1. No other simultaneous scenarios besides described above is supported for this model.
2. SISO represents 2.4 GHz WLAN/BT transmission on Ant H or Ant J, and 5/6 GHz transmission on Ant H or Ant E.
3. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
4. Per the manufacturer, WIFI Direct is not expected to be used in conjunction with a held-to-ear or body-worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table.
5. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII-2A, U-NII-2C, and U-NII-4 were not evaluated for wireless router conditions.
6. 6 GHz Wireless Router is not supported, therefore it was not evaluated for wireless router conditions.
7. This device supports 2x2 MIMO Tx for WLAN 802.11a/b/g/n/ac/ax/be. 802.11a/b/g/n/ac/ax/be supports CDD and STBC and 802.11n/ac/ax/be additionally supports SDM.
8. This device supports VoWIFI.
9. This device supports Bluetooth Tethering on Ant 1 only.
10. This device supports VoLTE.
11. This device supports VoNR.
12. LTE + 5G NR FR1 Scenarios are limited to EN-DC combinations with anchor bands as shown in the NR FR1 checklist.
13. 5G NR FR2 n258, n260, and n261 cannot transmit simultaneously.
14. LTE + 5G NR FR2 and 5G NR1 + 5G NR FR2 scenarios are limited to combinations with anchor bands as shown in the NR FR2 checklist.
15. UWB and NFC were evaluated for phablet based on expected usage conditions.

1.7 Miscellaneous SAR Test Considerations

(A) WIFI/BT

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

Since Wireless Router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A, U-NII-2C, U-NII-4 WIFI and 6 GHz, only 2.4 GHz WIFI, 2.4 GHz Bluetooth, and U-NII-3 WIFI Hotspot SAR tests and combinations are considered for SAR with respect to Wireless Router configurations according to FCC KDB 941225 D06v02r01.

This device supports IEEE 802.11ax/be with the following features:

a) Up to 320 MHz Bandwidth only for 6GHz
b) Up to 160 MHz Bandwidth only for 5/6 GHz
c) Up to 20 MHz Bandwidth only for 2.4 GHz
d) 2 Tx antenna output
e) Up to 4KQAM is supported
f) TDWR and Band gap channels are supported for 5/6 GHz
g) MU-MIMO UL Operations are not supported

Per FCC KDB Publication 648474 D01v06r03, this device is considered a "phablet" since the display diagonal dimension is greater than 150mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A, U-NII-2C, U-NII-4 WIFI and 6 GHz, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WLAN, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per April 2019 TCB Workshop Notes and FCC guidance, SAR testing for 802.11ax/be follows initial test configuration procedures of KDB 248227, with 802.11ax/be considered a higher order 802.11 mode.

Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors for WIFI 6GHz/UWB and 8GHz SAR probe calibration factors for UWB. FCC KDB 648474, FCC KDB 941225 D07 and FCC KDB 248227 were followed for test positions, distances, and modes. Absorbed power density (APD) using a $4cm^2$ averaging area is reported based on SAR measurements. Incident power density is evaluated at 2mm ensuring that the resolution is sufficient such that integrated power density (iPD) between d=2mm and d=λ/5mm is ≥ -1dB per equipment manufacturer guidance. Power density results are scaled up for uncertainty above 30%. Per TCB workshop October 2020 notes, 5 channels were tested for WIFI 6 GHz.

(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive. The downlink carrier aggregation exclusion analysis can be found in Downlink LTE CA RF Conducted Powers Appendix.

Per FCC KDB Publication 648474 D01v06r03, this device is considered a "phablet" since the display diagonal dimension is greater than 150mm and less than 200mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

This device supports LTE/NR capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE/NR Band falls completely within an LTE/NR band with a larger transmission frequency range, both LTE/NR bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE/NR bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

This device supports both Power Class 2 (PC2) and Power Class 3 (PC3) for LTE Band 41. Per May 2017 TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class 2 condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly (See Section 15).

This device supports LTE Carrier Aggregation (CA) for LTE Band 41, LTE Band 66, and LTE Band 48 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

This device can transmit with antenna E for GSM 850, UMTS 850, LTE B71/12/13/14/26/5, and NR Band n71/12/26/5, and antenna F for LTE B2/4/7/25/30/38/41/66 and NR Band n2/25/7/66/70/30/38. SAR tests for antenna E, and antenna F respectively were additionally performed for these bands to ensure compliance.

Per FCC Guidance, C-Band for NR n77 (3705 – 3975 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for the NR n77 DoD (3455.01 – 3544.98 MHz).

This device uses two transmit pathways for n41 operations (Path 1 and Path 2). For each exposure condition, the pathway with the highest target power was fully evaluated. The worst case for each antenna and exposure condition was additionally evaluated using the other path.

This device supports 5G NR for Bands n258, n260, and n261. RF Exposure assessment and simultaneous transmission analysis for these bands can be found in the Near Field PD Report (report SN can be found in Section 1.11 – Bibliography).

NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.

SRS was tested with CW signal per Qualcomm guidance in 80-w2112-4.

Per Qualcomm guidance in 80-W2112-4, when hotspot mode applies, 10-g extremity SAR is required for the surfaces and edges with hotspot mode 1g reported SAR > 1.2 W/kg. For surfaces and edges with hotspot mode 1g SAR < 1.2 W/kg, the 10-g extremity can be excluded when the normalized *SAR_design_target* for extremity DSI is less than or equal to that of hotspot DSI.

$$SAR\_design\_target\_extremity \leq \frac{SAR\_design\_target\_hotspot}{1g\ SAR\ limit} * 10g\ SAR\ limit$$

1.8 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r05, D05Av01r02, D06v02r01 (2G/3G/4G and Hotspot)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D01v06 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 648474 D01v06r03 (Phablet Procedures)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)
- May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO, LTE Band 41 Power Class 2/3)
- November 2017, April 2018, October 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- April 2019 TCB Workshop Notes (IEEE 802.11ax, Dynamic Antenna Tuning)
- November 2017, October 2018, April 2019, November 2019, October 2020 TCBC Workshop Notes (6-8 GHz)
- SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz) (Nov 2021)
- IEC/IEEE 63195-1:2022
- IEC 62479:2010

1.9 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 12.

1.10 Bibliography

Report Type	Report Serial Number
Near Field PD Report (Part 1)	1M2308210092-22.A3L
PD Evaluation Report (Part 0)	
RF Exposure Part 2 Test Report	1M2308210092-23.A3L
RF Exposure Compliance Summary Report	1M2308210092-25.A3L

2 PART 0 SAR CHARACTERIZATION

2.1 SAR Characterization

2.1.1 DSI and SAR Determination

This device uses different Device State Index (DSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the smartphone, the worst-case SAR was determined by measurements for the relevant exposure conditions for that DSI. Detailed descriptions of the detection mechanisms are included in the operational description.

When 1g SAR and 10g SAR exposure comparison is needed, the worst-case was determined from SAR normalized to 1g or 10g SAR limit.

The device state index (DSI) conditions used in Table 2-1 represent different exposure scenarios.

Table 2-1
DSI and Corresponding Exposure Scenarios

Scenario	Description	SAR Test Cases
Head (DSI = 1)	▪ Device positioned next to head ▪ Receiver Active	*Head SAR per KDB Publication 648474 D04*
Hotspot mode (DSI = 0)	▪ Device transmits in hotspot mode near body ▪ Hotspot Mode Active	*Hotspot SAR per KDB Publication 941225 D06*
Phablet (DSI = 0)	▪ Device is held with hand	*Phablet SAR per KDB Publication 648474 D04 & KDB Publication 616217 D04*
Body-worn (DSI = 0)	▪ Device being used with a body-worn accessory	*Body-worn SAR per KDB Publication 648474 D04*

2.1.2 SAR_Design_Target

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer (see Table 2-2).

Table 2-2
***SAR_design_target* Calculations**

SAR_design_target			
$SAR\_design\_target < SAR\_regulatory\_limit \times 10^{\frac{-Total\ Uncertainty}{10}}$			
1g SAR (W/kg)		**10g SAR (W/kg)**	
Total Uncertainty	1.0 dB	*Total Uncertainty*	1.0 dB
SAR_regulatory_limit	1.6 W/kg	*SAR_regulatory_limit*	4.0 W/kg
SAR_design_target	1.0 W/kg	*SAR_design_target*	2.5 W/kg

2.1.3 SAR Char

SAR test results corresponding to *Pmax/Plimit* for each antenna/technology/band/DSI can be found in SAR Summary Section and Part 0 SAR Test Results for Plimit Calculations Appendix.

Plimit is calculated by linearly scaling with the measured SAR at the Ppart0 to correspond to the *SAR_design_target*. When *Plimit* < *Pmax*, *Ppart0* was used as Plimit in the Smart Transmit EFS. When *Plimit* > *Pmax* and *Ppart0*=Pmax, calculated *Plimit* was used in the Smart Transmit EFS. For some bands/modes, the manufacture selected a lower *Plimit*. All reported SAR obtained from the Ppart0 SAR tests was less than *SAR_Design_target*+ 1 dB Uncertainty. The final *Plimit* determination for each exposure scenario corresponding to *SAR_design_target* are shown in Table 2-3.

Table 2-3
***PLimit* Determination**

Device State Index (DSI)	*PLimit* Determination Scenarios
0	The worst-case SAR exposure is determined as maximum SAR normalized to the limit (i.e. lowest P_{limit}) among: 1. Body Worn SAR 2. Extremity SAR measured at 0 mm for all surfaces. 3. Hotspot SAR at 10 mm
1	P_{limit} is calculated based on 1g Head SAR

Notes:

- When P_{max} < P_{limit} EFS, the DUT will operate at a power level up to P_{max}

- All P_{limit} EFS and maximum tune up output power P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD, GMSK, or OFDM modulation schemes (e.g. GSM, LTE TDD and WLAN/BT).

- Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty.

- All MIMO P_{max} and P_{limit} are defined per antenna chain.

Table 2-4
SAR Characterizations

Exposure Scenario			Maximum Tune-Up Output Power*	Body-Worn, Hotspot, or Phablet	Head
Averaging Volume				1g/10g	1g
Spacing				10mm, 0mm	0mm
Configuration					
DSI				0	1
Technology/Band	Antenna	Antenna Group	Pmax		
GSM 850	E	AG1	24.6	27.6	21.8
GSM 850	A	AG0	25.1	26.4	30.0
GSM 1900	A	AG0	21.8	18.8	29.3
UMTS 850	E	AG1	23.5	25.2	21.5
UMTS 850	A	AG0	24.0	24.9	29.4
UMTS 1750	A	AG0	23.0	19.0	28.7
UMTS 1900	A	AG0	23.0	18.0	31.1
LTE Band 71	A	AG0	24.0	26.9	28.3
LTE Band 71	E	AG1	23.5	26.2	22.8
LTE Band 12	A	AG0	24.3	26.1	27.2
LTE Band 12	E	AG1	23.8	26.6	22.0
LTE Band 13	A	AG0	24.0	25.2	27.6
LTE Band 13	E	AG1	23.5	26.1	23.0
LTE Band 14	A	AG0	24.3	25.2	27.2
LTE Band 14	E	AG1	23.8	26.1	22.0
LTE Band 26/5	E	AG1	23.5	26.2	21.0
LTE Band 26/5	A	AG0	24.0	25.5	29.6
LTE Band 66/4	A	AG0	23.5	18.5	28.1
LTE Band 66/4	F	AG1	23.5	20.5	18.5
LTE Band 25/2	A	AG0	23.5	18.0	28.4
LTE Band 25/2	F	AG1	23.5	20.0	18.5
LTE Band 30	F	AG1	22.5	20.0	18.0
LTE Band 30	A	AG0	22.5	19.5	32.4
LTE Band 7	B	AG0	23.0	19.5	28.0
LTE Band 7	F	AG1	23.0	19.5	16.0
LTE Band 41/38 PC3	B	AG0	22.0	19.5	27.1
LTE Band 41/38 PC3	F	AG1	22.0	19.5	16.5
LTE Band 41 PC2	B	AG0	22.1	19.5	27.1
LTE Band 41 PC2	F	AG1	22.1	19.5	16.5
LTE Band 48	F	AG1	20.5	20.0	16.5
NR Band n71	A	AG0	24.0	26.9	28.2
NR Band n71	E	AG1	23.5	25.3	22.0
NR Band n12	A	AG0	24.3	26.9	28.0
NR Band n12	E	AG1	23.8	25.9	21.0
NR Band n26/n5	E	AG1	23.5	25.9	21.0
NR Band n26/n5	A	AG0	24.0	25.2	29.7
NR Band n70	A	AG0	23.0	19.0	32.7
NR Band n70	F	AG1	23.0	21.5	19.0
NR Band n66	A	AG0	23.5	18.5	28.0
NR Band n66	F	AG1	23.5	20.5	18.5
NR Band n25/n2	A	AG0	23.5	18.0	27.3
NR Band n25/n2	F	AG1	23.5	20.0	18.5
NR Band n30	F	AG1	22.5	20.0	18.0
NR Band n30	A	AG0	22.5	19.5	32.3
NR Band n7	B	AG0	23.0	19.5	27.9
NR Band n7	F	AG1	23.0	19.4	16.0
NR Band n41 PC2 (Path 1)	F	AG1	26.0	19.0	16.5
NR Band n41 PC2 (Path 1)	B	AG0	22.0	17.5	19.0
NR Band n41 PC2 (Path 1)	E	AG1	23.0	17.0	17.0
NR Band n41 PC2 (Path 1)	D	AG0	21.0	16.5	16.5
NR Band n41 PC2 (Path 2)	B	AG0	26.0	19.5	21.0
NR Band n41 PC2 (Path 2)	F	AG1	20.5	17.0	15.0
NR Band n41 PC2 (Path 2)	D	AG0	22.0	17.0	17.0
NR Band n41 PC2 (Path 2)	E	AG1	17.0	14.0	14.0
NR Band n38	F	AG1	24.0	19.0	16.5
NR Band n38	B	AG0	24.0	19.5	21.0
NR Band n48	F	AG1	22.5	20.0	16.5
NR Band n48	C	AG0	16.5	14.5	11.5
NR Band n48	I	AG1	21.0	19.0	16.0
NR Band n48	D	AG0	17.0	14.5	11.5
NR Band n78 PC2	F	AG1	26.0	18.5	16.0
NR Band n78 PC2	C	AG0	20.0	15.0	11.5
NR Band n78 PC2	I	AG1	22.5	15.0	11.5
NR Band n78 PC2	D	AG0	20.5	14.5	11.0
NR Band n77 PC2	F	AG1	26.0	18.5	16.0
NR Band n77 PC2	C	AG0	20.0	15.0	11.5
NR Band n77 PC2	I	AG1	22.5	17.0	13.5
NR Band n77 PC2	D	AG0	20.5	15.0	11.5
2.4 GHz WIFI	H	AG1	19.0	18.0	16.0
2.4 GHz WIFI	J	AG1	19.0	18.0	16.0
2.4 GHz WIFI	MIMO	AG1	19.0	18.0	16.0
5 GHz WIFI	H	AG1	17.0	20.0	15.5
5 GHz WIFI	E	AG1	17.0	20.0	15.5
5 GHz WIFI	MIMO	AG1	17.0	19.4	15.5
6 GHz WIFI	H	AG1	16.0	11.5	11.5
6 GHz WIFI	E	AG1	16.0	11.5	11.5
6 GHz WIFI	MIMO	AG1	16.0	11.5	11.5
2.4 GHz Bluetooth	H	AG1	17.8	21.6	16.5
2.4 GHz Bluetooth	J	AG1	17.8	24.6	16.5
2.4 GHz Bluetooth	MIMO	AG1	12.8	18.9	12.0

3 LTE AND NR INFORMATION

LTE Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	LTE Band 71: 665.5 - 695.5 MHz				
	LTE Band 12: 699.7 - 715.3 MHz				
	LTE Band 13: 779.5 - 784.5 MHz				
	LTE Band 14: 790.5 - 795.5 MHz				
	LTE Band 26: 814.7 - 848.3 MHz				
	LTE Band 5: 824.7 - 848.3 MHz				
	LTE Band 66: 1710.7 - 1779.3 MHz				
	LTE Band 4: 1710.7 - 1754.3 MHz				
	LTE Band 25: 1850.7 - 1914.3 MHz				
	LTE Band 2: 1850.7 - 1909.3 MHz				
	LTE Band 30: 2307.5 - 2312.5 MHz				
	LTE Band 7: 2502.5 - 2567.5 MHz				
	LTE Band 41: 2498.5 - 2687.5 MHz				
	LTE Band 38: 2572.5 - 2617.5 MHz				
	LTE Band 48: 3552.5 - 3697.5 MHz				
Channel Bandwidths	LTE Band 71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 13: 5 MHz, 10 MHz				
	LTE Band 14: 5 MHz, 10 MHz				
	LTE Band 26: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz				
	LTE Band 5: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 66: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 4: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 25: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 2: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 30: 5 MHz, 10 MHz				
	LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 38: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 48: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 71: 5 MHz	665.5 (133147)		680.5 (133297)	695.5 (133447)	
LTE Band 71: 10 MHz	668 (133172)		680.5 (133297)	693 (133422)	
LTE Band 71: 15 MHz	670.5 (133197)		680.5 (133297)	690.5 (133397)	
LTE Band 71: 20 MHz	673 (133222)		680.5 (133297)	688 (133372)	
LTE Band 12: 1.4 MHz	699.7 (23017)		707.5 (23095)	715.3 (23173)	
LTE Band 12: 3 MHz	700.5 (23025)		707.5 (23095)	714.5 (23165)	
LTE Band 12: 5 MHz	701.5 (23035)		707.5 (23095)	713.5 (23155)	
LTE Band 12: 10 MHz	704 (23060)		707.5 (23095)	711 (23130)	
LTE Band 13: 5 MHz	779.5 (23205)		782 (23230)	784.5 (23255)	
LTE Band 13: 10 MHz	(N/A)		782 (23230)	(N/A)	
LTE Band 14: 5 MHz	790.5 (23305)		793 (23330)	795.5 (23355)	
LTE Band 14: 10 MHz	(N/A)		793 (23330)	(N/A)	
LTE Band 26: 1.4 MHz	814.7 (26697)		831.5 (26865)	848.3 (27033)	
LTE Band 26: 3 MHz	815.5 (26705)		831.5 (26865)	847.5 (27025)	
LTE Band 26: 5 MHz	816.5 (26715)		831.5 (26865)	846.5 (27015)	
LTE Band 26: 10 MHz	819 (26740)		831.5 (26865)	844 (26990)	
LTE Band 26: 15 MHz	821.5 (26765)		831.5 (26865)	841.5 (26965)	
LTE Band 5: 1.4 MHz	824.7 (20407)		836.5 (20525)	848.3 (20643)	
LTE Band 5: 3 MHz	825.5 (20415)		836.5 (20525)	847.5 (20635)	
LTE Band 5: 5 MHz	826.5 (20425)		836.5 (20525)	846.5 (20625)	
LTE Band 5: 10 MHz	829 (20450)		836.5 (20525)	844 (20600)	
LTE Band 66: 1.4 MHz	1710.7 (131979)		1745 (132322)	1779.3 (132665)	
LTE Band 66: 3 MHz	1711.5 (131987)		1745 (132322)	1778.5 (132657)	
LTE Band 66: 5 MHz	1712.5 (131997)		1745 (132322)	1777.5 (132647)	
LTE Band 66: 10 MHz	1715 (132022)		1745 (132322)	1775 (132622)	
LTE Band 66: 15 MHz	1717.5 (132047)		1745 (132322)	1772.5 (132597)	
LTE Band 66: 20 MHz	1720 (132072)		1745 (132322)	1770 (132572)	
LTE Band 4: 1.4 MHz	1710.7 (19957)		1732.5 (20175)	1754.3 (20393)	
LTE Band 4: 3 MHz	1711.5 (19965)		1732.5 (20175)	1753.5 (20385)	
LTE Band 4: 5 MHz	1712.5 (19975)		1732.5 (20175)	1752.5 (20375)	
LTE Band 4: 10 MHz	1715 (20000)		1732.5 (20175)	1750 (20350)	
LTE Band 4: 15 MHz	1717.5 (20025)		1732.5 (20175)	1747.5 (20325)	
LTE Band 4: 20 MHz	1720 (20050)		1732.5 (20175)	1745 (20300)	
LTE Band 25: 1.4 MHz	1850.7 (26047)		1882.5 (26365)	1914.3 (26683)	
LTE Band 25: 3 MHz	1851.5 (26055)		1882.5 (26365)	1913.5 (26675)	
LTE Band 25: 5 MHz	1852.5 (26065)		1882.5 (26365)	1912.5 (26665)	
LTE Band 25: 10 MHz	1855 (26090)		1882.5 (26365)	1910 (26640)	
LTE Band 25: 15 MHz	1857.5 (26115)		1882.5 (26365)	1907.5 (26615)	
LTE Band 25: 20 MHz	1860 (26140)		1882.5 (26365)	1905 (26590)	
LTE Band 2: 1.4 MHz	1850.7 (18607)		1880 (18900)	1909.3 (19193)	
LTE Band 2: 3 MHz	1851.5 (18615)		1880 (18900)	1908.5 (19185)	
LTE Band 2: 5 MHz	1852.5 (18625)		1880 (18900)	1907.5 (19175)	
LTE Band 2: 10 MHz	1855 (18650)		1880 (18900)	1905 (19150)	
LTE Band 2: 15 MHz	1857.5 (18675)		1880 (18900)	1902.5 (19125)	
LTE Band 2: 20 MHz	1860 (18700)		1880 (18900)	1900 (19100)	
LTE Band 30: 5 MHz	2307.5 (27685)		2310 (27710)	2312.5 (27735)	
LTE Band 30: 10 MHz	(N/A)		2310 (27710)	(N/A)	
LTE Band 7: 5 MHz	2502.5 (20775)		2535 (21100)	2567.5 (21425)	
LTE Band 7: 10 MHz	2505 (20800)		2535 (21100)	2565 (21400)	
LTE Band 7: 15 MHz	2507.5 (20825)		2535 (21100)	2562.5 (21375)	
LTE Band 7: 20 MHz	2510 (20850)		2535 (21100)	2560 (21350)	
LTE Band 41: 5 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 10 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 15 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 20 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 38: 5 MHz	2572.5 (37775)		2595 (38000)	2617.5 (38225)	
LTE Band 38: 10 MHz	2575 (37800)		2595 (38000)	2615 (38200)	
LTE Band 38: 15 MHz	2577.5 (37825)		2595 (38000)	2612.5 (38175)	
LTE Band 38: 20 MHz	2580 (37850)		2595 (38000)	2610 (38150)	
LTE Band 48: 5 MHz	3552.5 (55265)	3600.8 (55748)	(N/A)	3649.2 (56232)	3697.5 (56715)
LTE Band 48: 10 MHz	3555 (55290)	3601.7 (55757)	(N/A)	3648.3 (56223)	3695 (56690)
LTE Band 48: 15 MHz	3557.5 (55315)	3602.5 (55765)	(N/A)	3647.5 (56215)	3692.5 (56665)
LTE Band 48: 20 MHz	3560 (55340)	3603.3 (55773)	(N/A)	3646.7 (56207)	3690 (56640)
UE Category	UL UE Cat 18, DL UE Cat 20				
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256QAM				
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	YES				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Additional Information	This device does not support full CA features on 3GPP Release 16. It supports carrier aggregation, downlink MIMO features as shown in the RF Conducted Powers section of this report and the Downlink LTE CA RF Conducted Powers Appendix. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 16 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, eMBMS, Wifi Offloading, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

NR Information									
Form Factor	Portable Handset								
Frequency Range of each NR transmission band	NR Band n71: 665.5 - 695.5 MHz NR Band n12: 701.5 - 713.5 MHz NR Band n26: 816.5 - 846.5 MHz NR Band n5: 826.5 - 846.5 MHz NR Band n70: 1697.5 - 1707.5 MHz NR Band n66: 1712.5 - 1777.5 MHz NR Band n25: 1852.5 - 1912.5 MHz NR Band n2: 1852.5 - 1907.5 MHz NR Band n30: 2307.5 - 2312.5 MHz NR Band n7: 2502.5 - 2567.5 MHz NR Band n41: 2501.01 - 2685 MHz NR Band n38: 2575 - 2615 MHz NR Band n48: 3555 - 3694.98 MHz NR Band n78: 3455.01 - 3544.98 MHz; 3705 - 3795 MHz NR Band n77: 3455.01 - 3544.98 MHz; 3705 - 3975 MHz								
Channel Bandwidths	NR Band n71: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n12: 5 MHz, 10 MHz, 15 MHz NR Band n26: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n5: 5 MHz, 10 MHz, 15 MHz, 20 MHz NR Band n70: 5 MHz, 10 MHz, 15 MHz NR Band n66: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz NR Band n25: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz NR Band n2: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz NR Band n30: 5 MHz, 10 MHz NR Band n7: 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 35 MHz, 40 MHz NR Band n41: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz NR Band n38: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz NR Band n48: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz NR Band n78: 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz NR Band n77: 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz, 70 MHz, 80 MHz, 90 MHz, 100 MHz								
Channel Numbers and Frequencies (MHz)									
NR Band n71: 5 MHz	665.5 (133100)		680.5 (136100)		695.5 (139100)				
NR Band n71: 10 MHz	668 (133600)		680.5 (136100)		693 (138600)				
NR Band n71: 15 MHz	670.5 (134100)		680.5 (136100)		690.5 (138100)				
NR Band n71: 20 MHz	673 (134600)		680.5 (136100)		688 (137600)				
NR Band n12: 5 MHz	701.5 (140300)		707.5 (141500)		713.5 (142700)				
NR Band n12: 10 MHz	704 (140800)		707.5 (141500)		711 (142200)				
NR Band n12: 15 MHz	706.5 (141300)		707.5 (141500)		708.5 (141700)				
NR Band n26: 5 MHz	816.5 (163300)		831.5 (166300)		846.5 (169300)				
NR Band n26: 10 MHz	819 (163800)		831.5 (166300)		844 (168800)				
NR Band n26: 15 MHz	821.5 (164300)		831.5 (166300)		841.5 (168300)				
NR Band n26: 20 MHz	824 (164800)		831.5 (166300)		839 (167800)				
NR Band n5: 5 MHz	826.5 (165300)		836.5 (167300)		846.5 (169300)				
NR Band n5: 10 MHz	829 (165800)		836.5 (167300)		844 (168800)				
NR Band n5: 15 MHz	831.5 (166300)		836.5 (167300)		841.5 (168300)				
NR Band n5: 20 MHz	834 (166800)		836.5 (167300)		839 (167800)				
NR Band n70: 5 MHz	1697.5 (339500)		1702.5 (340500)		1707.5 (341500)				
NR Band n70: 10 MHz	1700 (340000)		1702.5 (340500)		1705 (341000)				
NR Band n70: 15 MHz	1702.5 (340500)		1702.5 (340500)		1702.5 (340500)				
NR Band n66: 5 MHz	1712.5 (342500)		1745 (349000)		1777.5 (355500)				
NR Band n66: 10 MHz	1715 (343000)		1745 (349000)		1775 (355000)				
NR Band n66: 15 MHz	1717.5 (343500)		1745 (349000)		1772.5 (354500)				
NR Band n66: 20 MHz	1720 (344000)		1745 (349000)		1770 (354000)				
NR Band n66: 25 MHz	1722.5 (344500)		1745 (349000)		1767.5 (353500)				
NR Band n66: 30 MHz	1725 (345000)		1745 (349000)		1765 (353000)				
NR Band n66: 35 MHz	1727.5 (345500)		1745 (349000)		1762.5 (352500)				
NR Band n66: 40 MHz	1730 (346000)		1745 (349000)		1760 (352000)				
NR Band n25: 5 MHz	1852.5 (370500)		1882.5 (376500)		1912.5 (382500)				
NR Band n25: 10 MHz	1855 (371000)		1882.5 (376500)		1910 (382000)				
NR Band n25: 15 MHz	1857.5 (371500)		1882.5 (376500)		1907.5 (381500)				
NR Band n25: 20 MHz	1860 (372000)		1882.5 (376500)		1905 (381000)				
NR Band n25: 25 MHz	1862.5 (372500)		1882.5 (376500)		1902.5 (380500)				
NR Band n25: 30 MHz	1865 (373000)		1882.5 (376500)		1900 (380000)				
NR Band n25: 35 MHz	1867.5 (373500)		1882.5 (376500)		1897.5 (379500)				
NR Band n25: 40 MHz	1870 (374000)		1882.5 (376500)		1895 (379000)				
NR Band n2: 5 MHz	1852.5 (370500)		1880 (376000)		1907.5 (381500)				
NR Band n2: 10 MHz	1855 (371000)		1880 (376000)		1905 (381000)				
NR Band n2: 15 MHz	1857.5 (371500)		1880 (376000)		1902.5 (380500)				
NR Band n2: 20 MHz	1860 (372000)		1880 (376000)		1900 (380000)				
NR Band n2: 25 MHz	(N/A)		1880 (376000)		(N/A)				
NR Band n2: 30 MHz	(N/A)		1880 (376000)		(N/A)				
NR Band n2: 35 MHz	(N/A)		1880 (376000)		(N/A)				
NR Band n2: 40 MHz	(N/A)		1880 (376000)		(N/A)				
NR Band n30: 5 MHz	2307.5 (461500)		2310 (462000)		2312.5 (462500)				
NR Band n30: 10 MHz	2310 (462000)		2310 (462000)		2310 (462000)				
NR Band n7: 5 MHz	2502.5 (500500)		2535 (507000)		2567.5 (513500)				
NR Band n7: 10 MHz	2505 (501000)		2535 (507000)		2565 (513000)				
NR Band n7: 15 MHz	2507.5 (501500)		2535 (507000)		2562.5 (512500)				
NR Band n7: 20 MHz	2510 (502000)		2535 (507000)		2560 (512000)				
NR Band n7: 25 MHz	2512.5 (502500)		2535 (507000)		2557.5 (511500)				
NR Band n7: 30 MHz	2515 (503000)		2535 (507000)		2555 (511000)				
NR Band n7: 35 MHz	2517.5 (503500)		2535 (507000)		2552.5 (511500)				
NR Band n7: 40 MHz	2520 (504000)		2535 (507000)		2550 (510000)				
NR Band n41: 10 MHz	2501.01 (500202)	2547 (509400)	2592.99 (518598)		2639.01 (527802)	2685 (537000)			
NR Band n41: 15 MHz	2503.5 (500700)	2546.26 (509652)	2592.99 (518598)		2637.75 (527550)	2682.51 (536502)			
NR Band n41: 20 MHz	2506.02 (501204)	2549.49 (509898)	2592.99 (518598)		2636.49 (527298)	2679.99 (535998)			
NR Band n41: 30 MHz	2511 (502200)	2552.01 (510402)	2592.99 (518598)		2634 (526800)	2674.98 (534996)			
NR Band n41: 40 MHz	2516.01 (503202)	2567.34 (513468)	(N/A)		2618.67 (523734)	2670 (534000)			
NR Band n41: 50 MHz	2521.02 (504204)		2592.99 (518598)		2664.99 (532998)				
NR Band n41: 60 MHz	2526 (505200)		2592.99 (518598)		2659.98 (531996)				
NR Band n41: 70 MHz	2531.01 (506202)		(N/A)		2655 (531000)				
NR Band n41: 80 MHz	2536.02 (507204)		(N/A)		2649.99 (529998)				
NR Band n41: 90 MHz	2541 (508200)		(N/A)		2644.98 (528996)				
NR Band n41: 100 MHz	2546.01 (509202)		2592.99 (518598)		2640 (528000)				
NR Band n38: 10 MHz	2575 (515000)		2595 (519000)		2615 (523000)				
NR Band n38: 15 MHz	2577.5 (515500)		2595 (519000)		2612.5 (522500)				
NR Band n38: 20 MHz	2580 (516000)		2595 (519000)		2610 (522000)				
NR Band n38: 30 MHz	2585 (517000)		2595 (519000)		2605 (521000)				
NR Band n38: 40 MHz	2590 (518000)		2595 (519000)		2600 (520000)				
NR Band n48: 10 MHz	3555 (637000)	3601.68 (640112)	(N/A)		3648.33 (643222)	3694.98 (646332)			
NR Band n48: 15 MHz	3557.52 (637168)	3602.49 (640166)	(N/A)		3647.49 (643168)	3692.49 (646166)			
NR Band n48: 20 MHz	3560.01 (637334)	3603.33 (640222)	(N/A)		3646.68 (643112)	3690 (646000)			
NR Band n48: 30 MHz	3565.02 (637668)	3605.01 (640334)	(N/A)		3645 (643000)	3684.99 (645666)			
NR Band n48: 40 MHz	3570 (638000)	(N/A)	3624.99 (641666)		(N/A)	3679.98 (645332)			
NR Band n78: 10 MHz	3705 (647000)	(N/A)	3750 (650000)		(N/A)	3795 (653000)			
NR Band n78: 15 MHz	3707.52 (647168)	(N/A)	3750 (650000)		(N/A)	3792.48 (652832)			
NR Band n78: 20 MHz	3710.01 (647334)	(N/A)	3750 (650000)		(N/A)	3789.99 (652666)			
NR Band n78: 25 MHz	3712.5 (647500)	(N/A)	3750 (650000)		(N/A)	3787.5 (652500)			
NR Band n78: 30 MHz	3715.02 (647668)	(N/A)	3750 (650000)		(N/A)	3784.98 (652332)			
NR Band n78: 40 MHz	3720 (648000)	(N/A)	(N/A)		(N/A)	3780 (652000)			
NR Band n78: 50 MHz	3725.01 (648334)	(N/A)	(N/A)		(N/A)	3774.99 (651666)			
NR Band n78: 60 MHz	(N/A)	(N/A)	3750 (650000)		(N/A)	(N/A)			
NR Band n78: 70 MHz	(N/A)	(N/A)	3750 (650000)		(N/A)	(N/A)			
NR Band n78: 80 MHz	(N/A)	(N/A)	3750 (650000)		(N/A)	(N/A)			
NR Band n78: 90 MHz	(N/A)	(N/A)	3750 (650000)		(N/A)	(N/A)			
NR Band n78: 100 MHz	(N/A)	(N/A)	3750 (650000)		(N/A)	(N/A)			
NR Band n77/78 DoD: 10 MHz	3455.01 (630334)		3500.01 (633334)		3544.98 (636332)				
NR Band n77/78 DoD: 15 MHz	3457.5 (630500)		3500.01 (633334)		3542.49 (636166)				
NR Band n77/78 DoD: 20 MHz	3460.02 (630668)		3500.01 (633334)		3540 (636000)				
NR Band n77/78 DoD: 25 MHz	3462.51 (630834)		3500.01 (633334)		3537.48 (635832)				
NR Band n77/78 DoD: 30 MHz	3465 (631000)		3500.01 (633334)		3534.99 (635666)				
NR Band n77/78 DoD: 40 MHz	3470.01 (631334)		(N/A)		3529.98 (635332)				
NR Band n77/78 DoD: 50 MHz	3475.02 (631668)		(N/A)		3525 (635000)				
NR Band n77/78 DoD: 60 MHz	(N/A)		3500.01 (633334)		(N/A)				
NR Band n77/78 DoD: 70 MHz	(N/A)		3500.01 (633334)		(N/A)				
NR Band n77/78 DoD: 80 MHz	(N/A)		3500.01 (633334)		(N/A)				
NR Band n77/78 DoD: 90 MHz	(N/A)		3500.01 (633334)		(N/A)				
NR Band n77/78 DoD: 100 MHz	(N/A)		3500.01 (633334)		(N/A)				
NR Band n77: 10 MHz	3705 (647000)	3759 (650600)	3813 (654200)	3867 (657800)	3921 (661400)	3975 (665000)			
NR Band n77: 15 MHz	3707.52 (647168)	3760.5 (650760)	3813.51 (654234)	3866.49 (657766)	3919.5 (661300)	3972.48 (664832)			
NR Band n77: 20 MHz	3710.01 (647334)	3762 (650800)	3813.99 (654266)	3866.01 (657734)	3918 (661200)	3969.99 (664666)			
NR Band n77: 25 MHz	3712.5 (647500)	3763.5 (650900)	3814.5 (654300)	3865.5 (657700)	3916.5 (661100)	3967.5 (664500)			
NR Band n77: 30 MHz	3715.02 (647668)	3765 (651000)	3815.01 (654334)	3864.99 (657666)	3915 (661000)	3964.98 (664332)			
NR Band n77: 40 MHz	3720 (648000)	3768 (651200)	3816 (654400)	3864 (657600)	3912 (660800)	3960 (664000)			
NR Band n77: 50 MHz	3725.01 (648334)	3782.49 (652166)	3840 (656000)		3897.51 (659834)	3954.99 (663666)			
NR Band n77: 60 MHz	3730.02 (648668)	3803.34 (653556)	(N/A)		3876.66 (658444)	3949.98 (663332)			
NR Band n77: 70 MHz	3735 (649000)	3804.99 (653666)	(N/A)		3875.01 (658334)	3945 (663000)			
NR Band n77: 80 MHz	3740.01 (649334)	(N/A)	3840 (656000)		(N/A)	3939.99 (662666)			
NR Band n77: 90 MHz	3745.02 (649668)	(N/A)	3840 (656000)		(N/A)	3934.98 (662332)			
NR Band n77: 100 MHz	3750 (650000)	(N/A)	(N/A)	(N/A)	(N/A)	3930 (662000)			
SCS for NR Band n71, n12, n26, n5, n70, n66, n25, n2, n30, n7	15 kHz								
SCS for NR Band n41, n38, n48, n78, n77, n77/78 DoD	30 kHz								
Modulations Supported in UL	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM								
A-MPR (Additional MPR) disabled for SAR Testing?	YES								
EN-DC and NR Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations								
LTE Anchor Bands for NR Band n71	LTE Band 2/4/66								
LTE Anchor Bands for NR Band n12	LTE Band 2/4/66								
LTE Anchor Bands for NR Band n26	N/A								
LTE Anchor Bands for NR Band n5	LTE Band 2/4/30/48/66								
LTE Anchor Bands for NR Band n70	N/A								
LTE Anchor Bands for NR Band n66	LTE Band 2/5/12/13/14/30/48								
LTE Anchor Bands for NR Band n25	LTE Band 12								
LTE Anchor Bands for NR Band n2	LTE Band 4/5/12/13/14/30/48/66								
LTE Anchor Bands for NR Band n30	N/A								
LTE Anchor Bands for NR Band n7	N/A								
LTE Anchor Bands for NR Band n41	LTE Band 2/4/5/12/66								
LTE Anchor Bands for NR Band n38	N/A								
LTE Anchor Bands for NR Band n48	N/A								
LTE Anchor Bands for NR Band n78	N/A								

4 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

4.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 4-1).

Equation 4-1
SAR Mathematical Equation

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{\rho dv}\right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ = conductivity of the tissue-simulating material (S/m)
ρ = mass density of the tissue-simulating material (kg/m^3)
E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

5 DOSIMETRIC ASSESSMENT

5.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

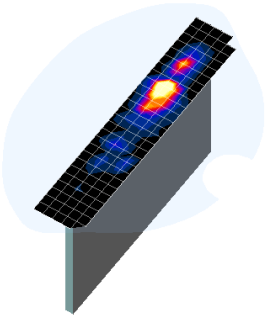


Figure 5-1
Sample SAR Area Scan

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 5-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 5-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 5-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 5-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

Frequency	Maximum Area Scan Resolution (mm) (Δx_{area}, Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom}, Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
			$\Delta z_{zoom}(n)$	$\Delta z_{zoom}(1)$*	$\Delta z_{zoom}(n>1)$*	
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≤ 4	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≤ 4	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≤ 3	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≤ 2.5	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≤ 2	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 22

*Also compliant to IEEE 1528-2013 Table 6

6 DEFINITION OF REFERENCE POINTS

6.1 EAR REFERENCE POINT

Figure 6-2 shows the front, back and side views of the SAM Twin Phantom. The point "M" is the reference point for the center of the mouth, "LE" is the left ear reference point (ERP), and "RE" is the right ERP. The ERP is 15mm posterior to the entrance to the ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 6-1. The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (see Figure 6-1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning [5].

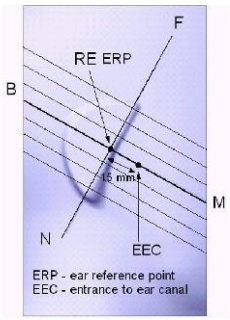


Figure 6-1
Close-Up Side view of ERP

6.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the acoustic output located along the "vertical centerline" on the front of the device aligned to the "ear reference point" (See Figure 6-3). The acoustic output was than located at the same level as the center of the ear reference point. The test device was positioned so that the "vertical centerline" was bisecting the front surface of the handset at its top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.

Figure 6-2
Front, back and side view of SAM Twin Phantom

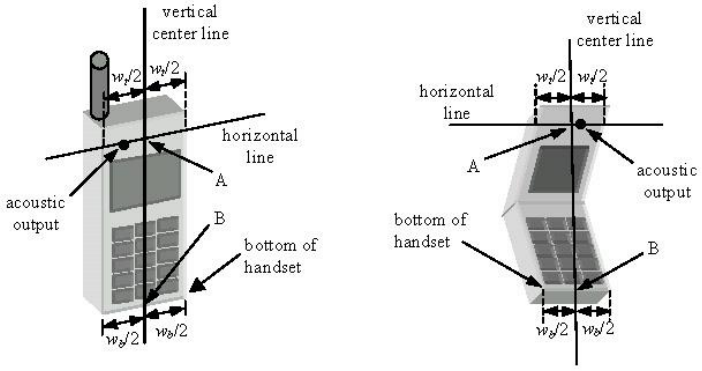


Figure 6-3
Handset Vertical Center & Horizontal Line Reference Points

7 TEST CONFIGURATION POSITIONS

7.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02.

7.2 Positioning for Cheek

1. The test device was positioned with the device close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 7-1), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom.

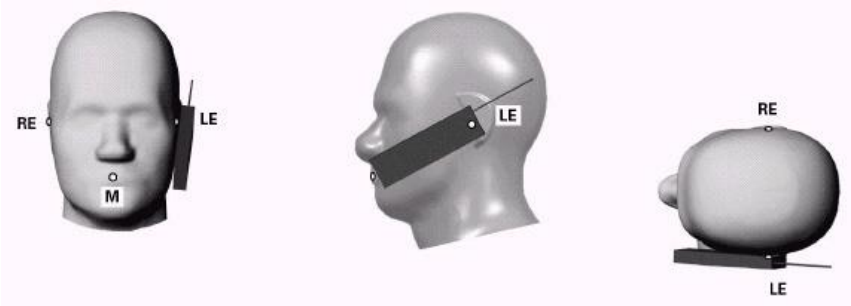


Figure 7-1 Front, Side and Top View of Cheek Position

2. The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the pinna.
3. While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the reference plane.
4. The phone was then rotated around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.
5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the device contact with the ear, the device was rotated about the NF line until any point on the handset made contact with a phantom point below the ear (cheek) (See Figure 7-2).

7.3 Positioning for Ear / 15º Tilt

With the test device aligned in the “Cheek Position”:

1. While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15degrees.
2. The phone was then rotated around the horizontal line by 15 degrees.
3. While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the handset touched the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. In this situation, the tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head (see Figure 7-2).

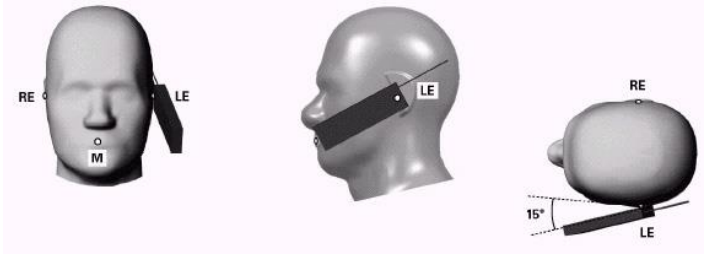


Figure 7-2 Front, Side and Top View of Ear/15º Tilt Position

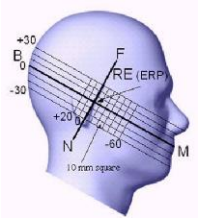


Figure 7-3
Side view w/ relevant markings

7.4 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones. Per IEEE 1528-2013, a rotated SAM phantom is necessary to allow probe access to such regions. Both SAM heads of the TwinSAM-Chin20 are rotated 20 degrees around the NF line. Each head can be removed from the table for emptying and cleaning.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D01v06r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR location identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

7.5 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 7-4). Per FCC KDB Publication 648474 D01v06r03, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

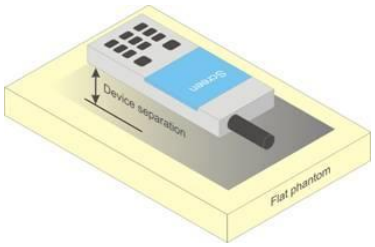


Figure 7-4
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not

contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented.
Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

7.6 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions; i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1g body and 10g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

Per KDB Publication 447498 D01v06, Cell phones (handsets) are not normally designed to be used on extremities or operated in extremity only exposure conditions. The maximum output power levels of handsets generally do not require extremity SAR testing to show compliance. Therefore, extremity SAR was not evaluated for this device.

7.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

7.8 Phablet Configurations

For smart phones with a display diagonal dimension > 150 mm or an overall diagonal dimension > 160 mm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that

support voice calls next to the ear, the phablets procedures outlined in KDB Publication 648474 D01v06r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worn accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna <=25 mm from that surface or edge, in direct contact with the phantom, for 10g SAR. The UMPC mini-tablet 1g SAR at 5 mm is not required. When hotspot mode applies, 10g SAR is required only for the surfaces and edges with hotspot mode 1g SAR > 1.2 W/kg.

8 RF EXPOSURE LIMITS

8.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

8.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 8-1
SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

HUMAN EXPOSURE LIMITS		
	UNCONTROLLED ENVIRONMENT *General Population* (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT *Occupational* (W/kg) or (mW/g)
Peak Spatial Average SAR Head	1.6	8.0
Whole Body SAR	0.08	0.4
Peak Spatial Average SAR Hands, Feet, Ankle, Wrists, etc.	4.0	20

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

8.3 RF Exposure Limits for Frequencies above 6 GHz

Per §1.1310 (d)(3), the MPE limits are applied for frequencies above 6 GHz. Power Density is expressed in units of W/m^2 or mW/cm^2.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4 cm^2 per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes.

Table 8-2
Human Exposure Limits Specified in FCC 47 CFR §1.1310

Human Exposure to Radiofrequency (RF) Radiation Limits		
Frequency Range [MHz]	**Power Density** [mW/cm^2]	**Average Time** [Minutes]
(A) Limits For Occupational / Controlled Environments		
1,500 – 100,000	5.0	6
(B) Limits For General Population / Uncontrolled Environments		
1,500 – 100,000	1.0	30

Note: 1.0 mW/cm^2 is 10 W/m^2

9 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

9.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as *reported* SAR. The highest *reported* SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

9.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

9.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

9.4 SAR Measurement Conditions for UMTS

9.4.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

9.4.2 Head SAR Measurements

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

9.4.3 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all "1s". The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or $DPDCH_n$, for the highest reported SAR configuration in 12.2 kbps RMC.

9.4.4 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

9.4.5 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

9.4.6 SAR Measurement Conditions for DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

9.5 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

9.5.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

9.5.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

9.5.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

9.5.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

9.5.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

9.5.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink

carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for downlink only carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

9.6 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

9.6.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

9.6.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

9.6.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all

positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.5 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n/ax OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.6 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop and FCC guidance, 802.11ax/be was considered the highest order 802.11 mode. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

9.6.7 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest

802.11 mode is considered for SAR measurements (See Section 9.6.6). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

9.6.9 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

10 RF CONDUCTED POWERS

All conducted power measurements for Sub6 WWAN technologies and bands in this section were performed by setting *Reserve_power_margin* (Qualcomm® Smart Transmit EFS entry) to 0dB, so that the EUT transmits continuously at minimum (P_{limit}, maximum tune up output power P_{max}).

10.1 GSM Conducted Powers

Table 10-1
Measured P_{max} for all DSI for GSM 850 Ant A
Measured P_{limit} for DSI = 0 (Body-worn, Hotspot or Phablet) for GSM 1900 Ant A

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	31.54	31.58	30.19	**28.53**	26.68	26.03	24.40	23.59	23.33
	190	31.85	31.89	30.43	**28.64**	26.82	26.12	24.47	23.47	23.27
	251	31.71	31.75	30.34	**28.61**	26.68	25.81	24.44	23.61	23.30
GSM 1900	512	27.31	27.12	24.68	22.37	**21.19**	24.85	23.71	22.05	21.53
	661	27.61	27.76	24.95	22.86	**21.60**	25.22	24.08	22.08	21.38
	810	27.53	27.93	25.06	23.15	**21.82**	25.14	24.02	22.03	21.55

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	22.34	22.38	24.00	**24.10**	23.50	16.83	18.21	19.16	20.15
	190	22.65	22.69	24.24	**24.21**	23.64	16.92	18.28	19.04	20.09
	251	22.51	22.55	24.15	**24.18**	23.50	16.61	18.25	19.18	20.12
GSM 1900	512	18.11	17.92	18.49	17.94	**18.01**	15.65	17.52	17.62	18.35
	661	18.41	18.56	18.76	18.43	**18.42**	16.02	17.89	17.65	18.20
	810	18.33	18.73	18.87	18.72	**18.64**	15.94	17.83	17.60	18.37

GSM 850	**Frame Avg.Targets:**	23.30	23.30	24.81	**25.07**	24.32	17.80	18.81	19.57	20.82
GSM 1900		18.80	18.80	18.81	18.77	**18.82**	16.80	17.81	18.77	18.82

Table 10-2
Measured P_{max} for DSI = 1 (Head) for GSM 1900 Ant A

Band	Channel	GSM [dBm] CS (1 Slot)	GPRS [dBm] 1 Tx Slot	GPRS [dBm] 2 Tx Slot	GPRS [dBm] 3 Tx Slot	GPRS [dBm] 4 Tx Slot	EDGE [dBm] 1 Tx Slot	EDGE [dBm] 2 Tx Slot	EDGE [dBm] 3 Tx Slot	EDGE [dBm] 4 Tx Slot
GSM 1900	512	28.57	28.62	27.13	**25.17**	23.74	24.85	23.71	23.06	22.79
	661	28.63	28.71	27.74	**25.60**	24.09	25.22	24.08	23.40	23.17
	810	28.85	28.90	27.82	**25.78**	24.12	25.14	24.02	23.29	23.11

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	Channel	GSM [dBm] CS (1 Slot)	GPRS [dBm] 1 Tx Slot	GPRS [dBm] 2 Tx Slot	GPRS [dBm] 3 Tx Slot	GPRS [dBm] 4 Tx Slot	EDGE [dBm] 1 Tx Slot	EDGE [dBm] 2 Tx Slot	EDGE [dBm] 3 Tx Slot	EDGE [dBm] 4 Tx Slot
GSM 1900	512	19.37	19.42	20.94	**20.74**	20.56	15.65	17.52	18.63	19.61
	661	19.43	19.51	21.55	**21.17**	20.91	16.02	17.89	18.97	19.99
	810	19.65	19.70	21.63	**21.35**	20.94	15.94	17.83	18.86	19.93
GSM 1900	Frame Avg.Targets:	19.80	19.80	21.81	**21.57**	21.32	16.80	17.81	19.07	20.32

Table 10-3
Measured P_{max} for DSI = 0 (Body-worn, Hotspot or Phablet) for GSM 850 Ant E

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	Channel	GSM [dBm] CS (1 Slot)	GPRS [dBm] 1 Tx Slot	GPRS [dBm] 2 Tx Slot	GPRS [dBm] 3 Tx Slot	GPRS [dBm] 4 Tx Slot	EDGE [dBm] 1 Tx Slot	EDGE [dBm] 2 Tx Slot	EDGE [dBm] 3 Tx Slot	EDGE [dBm] 4 Tx Slot
GSM 850	128	32.08	32.06	30.44	**28.58**	26.31	26.41	24.31	22.97	22.83
	190	32.39	32.32	30.90	**29.29**	26.52	26.83	24.53	23.67	23.02
	251	32.06	32.03	30.89	**29.01**	26.34	26.55	24.51	23.49	22.87

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	Channel	GSM [dBm] CS (1 Slot)	GPRS [dBm] 1 Tx Slot	GPRS [dBm] 2 Tx Slot	GPRS [dBm] 3 Tx Slot	GPRS [dBm] 4 Tx Slot	EDGE [dBm] 1 Tx Slot	EDGE [dBm] 2 Tx Slot	EDGE [dBm] 3 Tx Slot	EDGE [dBm] 4 Tx Slot
GSM 850	128	22.88	22.86	24.25	**24.15**	23.13	17.21	18.12	18.54	19.65
	190	23.19	23.12	24.71	**24.86**	23.34	17.63	18.34	19.24	19.84
	251	22.86	22.83	24.70	**24.58**	23.16	17.35	18.32	19.06	19.69
GSM 850	Frame Avg.Targets:	22.80	22.80	24.31	**24.57**	23.82	17.30	18.31	19.07	20.32

Table 10-4
Measured P_{limit} for DSI = 1 (Head) for GSM 850 Ant E

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (GMSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	30.23	30.34	27.18	25.20	**24.17**	26.41	24.31	22.97	22.83
	190	30.57	30.69	27.47	25.58	**23.80**	26.83	24.53	23.67	23.02
	251	30.55	30.65	27.20	25.55	**23.72**	26.55	24.51	23.49	22.87

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (GMSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	21.03	21.14	20.99	20.77	**20.99**	17.38	18.29	18.71	19.82
	190	21.37	21.49	21.28	21.15	**20.62**	17.80	18.51	19.41	20.01
	251	21.35	21.45	21.01	21.12	**20.54**	17.52	18.49	19.23	19.86
GSM 850	**Frame Avg.Targets:**	21.80	21.80	21.81	21.77	**21.82**	17.30	18.31	19.07	20.32

Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8-PSK modulation do not have an impact on output power.

GSM Class: B
GPRS Multislot class: 33 (Max 4 Tx uplink slots)
EDGE Multislot class: 33 (Max 4 Tx uplink slots)
DTM Multislot Class: N/A

Figure 10-1
Power Measurement Setup

10.2 UMTS Conducted Powers

Table 10-5
Measured P_{max} for all DSI for UMTS 850 Ant A
Measured P_{limit} for DSI = 0 (Body-worn, Hotspot or Phablet) for UMTS 1750 & UMTS 1900 Ant A

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			4132	4183	4233	1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	23.28	**23.29**	23.15	19.52	19.52	**19.54**	17.77	18.05	**18.08**	-
99		12.2 kbps AMR	23.28	23.29	23.12	19.50	19.48	19.57	17.83	18.15	18.16	-
6	HSDPA	Subtest 1	22.53	22.59	22.38	18.58	18.48	18.59	16.51	16.75	16.83	0
6		Subtest 2	22.55	22.54	22.37	18.57	18.40	18.53	16.50	16.72	16.79	0
6		Subtest 3	22.03	22.03	21.89	18.02	17.93	18.03	15.99	16.24	16.33	0.5
6		Subtest 4	22.04	22.05	21.88	18.05	17.95	17.98	16.02	16.22	16.30	0.5
6	HSUPA	Subtest 1	22.53	22.54	22.38	18.61	18.54	18.64	16.53	16.75	16.84	0
6		Subtest 2	20.56	20.57	20.40	16.62	16.49	16.60	14.54	14.77	14.83	2
6		Subtest 3	21.56	21.51	21.36	17.57	17.49	17.63	15.58	15.73	15.84	1
6		Subtest 4	20.54	20.56	20.40	16.59	16.52	16.60	14.43	14.75	14.58	2
6		Subtest 5	22.55	22.62	22.43	18.58	18.54	18.64	16.57	16.75	16.89	0
8	DC-HSDPA	Subtest 1	23.56	23.55	23.37	18.40	18.31	18.42	16.58	16.86	16.94	0
8		Subtest 2	23.53	23.53	23.34	17.95	17.94	18.02	16.64	16.84	16.92	0
8		Subtest 3	23.46	23.46	23.36	17.18	17.20	17.35	16.17	16.29	16.41	0.5
8		Subtest 4	23.49	23.50	23.37	17.13	17.12	17.26	16.14	16.31	16.39	0.5

Table 10-6
Measured P_{max} for DSI = 1 (Head) for UMTS 1750 & UMTS 1900 Ant A

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	22.56	22.54	**22.60**	22.10	22.33	**22.45**	-
99		12.2 kbps AMR	22.55	22.53	22.60	22.08	22.34	22.45	-
6	HSDPA	Subtest 1	21.60	21.48	21.57	21.15	21.35	21.40	0
6		Subtest 2	21.49	21.42	21.61	21.12	21.34	21.43	0
6		Subtest 3	21.10	20.97	21.11	20.62	20.79	20.94	0.5
6		Subtest 4	21.09	21.00	21.12	20.66	20.86	20.89	0.5
6	HSUPA	Subtest 1	21.62	21.52	21.63	21.16	21.34	21.43	0
6		Subtest 2	19.61	19.51	19.63	19.19	19.42	19.45	2
6		Subtest 3	20.59	20.61	20.63	20.21	20.36	20.42	1
6		Subtest 4	19.62	19.54	19.64	19.25	19.39	19.43	2
6		Subtest 5	21.64	21.53	21.67	21.23	21.37	21.48	0
8	DC-HSDPA	Subtest 1	21.52	21.44	21.56	21.17	21.30	21.47	0
8		Subtest 2	21.53	21.43	21.59	21.13	21.33	21.47	0
8		Subtest 3	20.97	20.87	20.98	20.66	20.78	20.91	0.5
8		Subtest 4	21.01	20.81	21.03	20.66	20.82	20.98	0.5

Table 10-7
Measured P_{max} for DSI = 0 (Body-worn, Hotspot or Phablet) for UMTS 850 Ant E

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			3GPP MPR [dB]
			4132	4183	4233	
99	WCDMA	12.2 kbps RMC	22.56	**22.61**	22.57	-
99		12.2 kbps AMR	22.55	22.60	22.54	-
6	HSDPA	Subtest 1	22.06	22.19	22.05	0
6		Subtest 2	22.12	22.19	22.04	0
6		Subtest 3	21.61	21.70	21.53	0.5
6		Subtest 4	21.59	21.66	21.49	0.5
6	HSUPA	Subtest 1	22.11	21.66	22.02	0
6		Subtest 2	20.10	20.14	20.02	2
6		Subtest 3	21.07	21.17	21.01	1
6		Subtest 4	20.12	20.20	20.03	2
6		Subtest 5	22.14	22.18	22.05	0
8	DC-HSDPA	Subtest 1	22.11	22.19	22.00	0
8		Subtest 2	22.11	22.18	22.04	0
8		Subtest 3	21.62	21.69	21.56	0.5
8		Subtest 4	21.62	21.72	21.53	0.5

Table 10-8
Measured P_{limit} for DSI = 1 (Head) for UMTS 850 Ant E

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			3GPP MPR [dB]
			4132	4183	4233	
99	WCDMA	12.2 kbps RMC	21.22	**21.27**	21.20	-
99		12.2 kbps AMR	21.20	21.26	21.19	-
6	HSDPA	Subtest 1	20.42	20.48	20.35	0
6		Subtest 2	20.38	20.47	20.34	0
6		Subtest 3	19.96	20.07	19.80	0.5
6		Subtest 4	19.95	19.98	19.84	0.5
6	HSUPA	Subtest 1	20.44	20.56	20.39	0
6		Subtest 2	18.46	18.54	18.35	2
6		Subtest 3	19.53	19.53	19.37	1
6		Subtest 4	18.43	18.51	18.36	2
6		Subtest 5	20.47	20.53	20.35	0
8	DC-HSDPA	Subtest 1	20.35	20.48	20.31	0
8		Subtest 2	20.42	20.53	20.34	0
8		Subtest 3	19.91	19.82	19.80	0.5
8		Subtest 4	19.97	20.04	19.85	0.5

DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements
- The DUT supports UE category 24 for HSDPA

It is expected by the manufacturer that MPR for some HSPA subtests may be up to 2 dB more than specified by 3GPP, but also as low as 0 dB according to the chipset implementation in this model.

Figure 10-2
Power Measurement Setup

10.3 LTE Conducted Powers

Note: Per FCC KDB Publication 941225 D05v02r05, LTE SAR for the lower bandwidths was not required for testing since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg. Lower bandwidth conducted powers for all LTE bands can be found in LTE and NR Lower Bandwidth RF Conducted Powers Appendix.

Note: Some bands do not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

LTE Carrier Aggregation Notes:

1. This device supports uplink carrier aggregation for LTE CA_66B, LTE CA_66C, LTE CA_ 48C, and LTE CA_41C with a maximum of two component carriers. For intraband contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.
2. Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

10.3.1 LTE Band 71

Table 10-9
LTE Band 71 Ant A Measured P_{Max} for all DSI - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.65	0	0
	1	50	**23.96**		0
	1	99	23.90		0
	50	0	22.86	0-1	1
	50	25	**22.94**		1
	50	50	22.93		1
	100	0	22.86		1
16QAM	1	0	23.15	0-1	1
	1	50	23.62		1
	1	99	23.48		1
	50	0	21.85	0-2	2
	50	25	21.96		2
	50	50	21.96		2
	100	0	21.89		2
64QAM	1	0	22.33	0-2	2
	1	50	22.41		2
	1	99	22.41		2
	50	0	20.79	0-3	3
	50	25	20.90		3
	50	50	20.92		3
	100	0	20.88		3
256QAM	1	0	19.08	0-5	5
	1	50	19.42		5
	1	99	19.25		5
	50	0	18.79		5
	50	25	18.94		5
	50	50	18.97		5
	100	0	18.88		5

Table 10-10
LTE Band 71 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.17	0	0
	1	50	23.44		0
	1	99	**23.47**		0
	50	0	22.42	0-1	1
	50	25	22.52		1
	50	50	**22.53**		1
	100	0	22.48		1
16QAM	1	0	22.41	0-1	1
	1	50	22.68		1
	1	99	22.72		1
	50	0	21.42	0-2	2
	50	25	21.53		2
	50	50	21.47		2
	100	0	21.43		2
64QAM	1	0	21.42	0-2	2
	1	50	21.77		2
	1	99	21.54		2
	50	0	20.40	0-3	3
	50	25	20.47		3
	50	50	20.44		3
	100	0	20.42		3
256QAM	1	0	18.39	0-5	5
	1	50	18.46		5
	1	99	18.63		5
	50	0	18.35		5
	50	25	18.47		5
	50	50	18.35		5
	100	0	18.45		5

Table 10-11
LTE Band 71 Ant E Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	22.25	0	0
	1	50	22.51		0
	1	99	**22.52**		0
	50	0	22.17	0-1	0.3
	50	25	22.20		0.3
	50	50	**22.22**		0.3
	100	0	22.19		0.3
16QAM	1	0	22.11	0-1	0.3
	1	50	22.33		0.3
	1	99	22.46		0.3
	50	0	21.53	0-2	1.3
	50	25	21.61		1.3
	50	50	21.70		1.3
	100	0	21.63		1.3
64QAM	1	0	21.74	0-2	1.3
	1	50	21.90		1.3
	1	99	21.87		1.3
	50	0	20.60	0-3	2.3
	50	25	20.65		2.3
	50	50	20.74		2.3
	100	0	20.53		2.3
256QAM	1	0	18.61	0-5	4.3
	1	50	18.87		4.3
	1	99	18.71		4.3
	50	0	18.53		4.3
	50	25	18.61		4.3
	50	50	18.76		4.3
	100	0	18.64		4.3

10.3.2 LTE Band 12

Table 10-12
LTE Band 12 Ant A Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.94	0	0
	1	25	**23.99**		0
	1	49	23.87		0
	25	0	22.98	0-1	1
	25	12	23.03		1
	25	25	**23.08**		1
	50	0	22.98		1
16QAM	1	0	23.38	0-1	1
	1	25	23.22		1
	1	49	23.21		1
	25	0	22.02	0-2	2
	25	12	22.07		2
	25	25	22.13		2
	50	0	22.03		2
64QAM	1	0	22.19	0-2	2
	1	25	22.29		2
	1	49	22.17		2
	25	0	21.06	0-3	3
	25	12	21.02		3
	25	25	21.17		3
	50	0	21.00		3
256QAM	1	0	19.22	0-5	5
	1	25	19.45		5
	1	49	19.17		5
	25	0	19.04		5
	25	12	19.07		5
	25	25	19.16		5
	50	0	19.04		5

Table 10-13
LTE Band 12 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**23.94**	0	0
	1	25	23.87		0
	1	49	23.89		0
	25	0	22.84	0-1	1
	25	12	22.92		1
	25	25	**22.95**		1
	50	0	22.92		1
16QAM	1	0	23.02	0-1	1
	1	25	23.01		1
	1	49	22.96		1
	25	0	21.85	0-2	2
	25	12	21.99		2
	25	25	21.95		2
	50	0	21.97		2
64QAM	1	0	22.07	0-2	2
	1	25	22.23		2
	1	49	21.94		2
	25	0	20.83	0-3	3
	25	12	20.95		3
	25	25	21.02		3
	50	0	20.94		3
256QAM	1	0	18.97	0-5	5
	1	25	19.03		5
	1	49	18.81		5
	25	0	18.83		5
	25	12	18.94		5
	25	25	18.89		5
	50	0	18.92		5

Table 10-14
LTE Band 12 Ant E Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**21.78**	0	0
	1	25	21.72		0
	1	49	21.57		0
	25	0	**21.75**	0-1	0
	25	12	21.71		0
	25	25	21.74		0
	50	0	21.56		0
16QAM	1	0	21.69	0-1	0
	1	25	21.96		0
	1	49	21.77		0
	25	0	21.52	0-2	0.2
	25	12	21.67		0.2
	25	25	21.57		0.2
	50	0	21.64		0.2
64QAM	1	0	21.82	0-2	0.2
	1	25	21.85		0.2
	1	49	21.90		0.2
	25	0	21.09	0-3	1.2
	25	12	21.15		1.2
	25	25	21.04		1.2
	50	0	21.18		1.2
256QAM	1	0	19.00	0-5	3.2
	1	25	19.19		3.2
	1	49	19.20		3.2
	25	0	19.11		3.2
	25	12	19.14		3.2
	25	25	19.20		3.2
	50	0	19.14		3.2

10.3.3 LTE Band 13

Table 10-15
LTE Band 13 Ant A Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**23.87**	0	0
	1	25	23.80		0
	1	49	23.66		0
	25	0	22.75	0-1	1
	25	12	**22.80**		1
	25	25	22.75		1
	50	0	22.78		1
16QAM	1	0	23.26	0-1	1
	1	25	23.25		1
	1	49	23.15		1
	25	0	21.76	0-2	2
	25	12	21.84		2
	25	25	21.81		2
	50	0	21.90		2
64QAM	1	0	22.46	0-2	2
	1	25	22.45		2
	1	49	22.15		2
	25	0	20.86	0-3	3
	25	12	20.78		3
	25	25	20.76		3
	50	0	20.77		3
256QAM	1	0	19.05	0-5	5
	1	25	19.14		5
	1	49	18.87		5
	25	0	18.78		5
	25	12	18.83		5
	25	25	18.79		5
	50	0	18.81		5

Table 10-16
LTE Band 13 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.39	0	0
	1	25	23.39		0
	1	49	**23.41**		0
	25	0	**22.41**	0-1	1
	25	12	22.34		1
	25	25	22.34		1
	50	0	22.40		1
16QAM	1	0	22.64	0-1	1
	1	25	22.48		1
	1	49	22.35		1
	25	0	21.45	0-2	2
	25	12	21.39		2
	25	25	21.37		2
	50	0	21.54		2
64QAM	1	0	21.74	0-2	2
	1	25	21.58		2
	1	49	21.30		2
	25	0	20.44	0-3	3
	25	12	20.41		3
	25	25	20.38		3
	50	0	20.30		3
256QAM	1	0	18.54	0-5	5
	1	25	18.56		5
	1	49	18.35		5
	25	0	18.45		5
	25	12	18.39		5
	25	25	18.36		5
	50	0	18.40		5

Table 10-17
LTE Band 13 Ant E Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	22.09	0	0
	1	25	22.08		0
	1	49	**22.12**		0
	25	0	**22.20**	0-1	0.5
	25	12	21.95		0.5
	25	25	21.97		0.5
	50	0	21.85		0.5
16QAM	1	0	22.46	0-1	0.5
	1	25	22.28		0.5
	1	49	21.88		0.5
	25	0	21.25	0-2	1.5
	25	12	21.23		1.5
	25	25	21.23		1.5
	50	0	21.36		1.5
64QAM	1	0	21.33	0-2	1.5
	1	25	21.38		1.5
	1	49	21.28		1.5
	25	0	20.37	0-3	2.5
	25	12	20.22		2.5
	25	25	20.12		2.5
	50	0	20.38		2.5
256QAM	1	0	18.22	0-5	4.5
	1	25	18.49		4.5
	1	49	18.16		4.5
	25	0	18.29		4.5
	25	12	18.20		4.5
	25	25	18.20		4.5
	50	0	18.20		4.5

10.3.4 LTE Band 14

Table 10-18
LTE Band 14 Ant A Measured P_{Max} for all DSI - 10 MHz Bandwidth

LTE Band 14 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.66	0	0
	1	25	**23.77**		0
	1	49	23.63		0
	25	0	22.76	0-1	1
	25	12	**22.79**		1
	25	25	22.71		1
	50	0	22.69		1
16QAM	1	0	23.31	0-1	1
	1	25	23.28		1
	1	49	23.20		1
	25	0	21.78	0-2	2
	25	12	21.77		2
	25	25	21.73		2
	50	0	21.69		2
64QAM	1	0	22.37	0-2	2
	1	25	22.29		2
	1	49	22.14		2
	25	0	20.78	0-3	3
	25	12	20.71		3
	25	25	20.75		3
	50	0	20.69		3
256QAM	1	0	19.01	0-5	5
	1	25	19.25		5
	1	49	19.03		5
	25	0	18.81		5
	25	12	18.74		5
	25	25	18.70		5
	50	0	18.75		5

Table 10-19
LTE Band 14 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 14 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**23.68**	0	0
	1	25	23.64		0
	1	49	23.67		0
	25	0	22.67	0-1	1
	25	12	**22.70**		1
	25	25	22.58		1
	50	0	22.67		1
16QAM	1	0	22.89	0-1	1
	1	25	22.82		1
	1	49	22.72		1
	25	0	21.66	0-2	2
	25	12	21.70		2
	25	25	21.61		2
	50	0	21.66		2
64QAM	1	0	21.82	0-2	2
	1	25	21.77		2
	1	49	21.76		2
	25	0	20.67	0-3	3
	25	12	20.71		3
	25	25	20.64		3
	50	0	20.65		3
256QAM	1	0	18.66	0-5	5
	1	25	18.76		5
	1	49	18.61		5
	25	0	18.60		5
	25	12	18.67		5
	25	25	18.60		5
	50	0	18.63		5

Table 10-20
LTE Band 14 Ant E Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 14 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**21.29**	0	0
	1	25	21.26		0
	1	49	21.25		0
	25	0	**21.31**	0-1	0
	25	12	21.26		0
	25	25	21.27		0
	50	0	21.26		0
16QAM	1	0	21.40	0-1	0
	1	25	21.34		0
	1	49	21.23		0
	25	0	21.28	0-2	0.2
	25	12	21.40		0.2
	25	25	21.25		0.2
	50	0	21.34		0.2
64QAM	1	0	21.52	0-2	0.2
	1	25	21.42		0.2
	1	49	21.12		0.2
	25	0	20.76	0-3	1.2
	25	12	20.84		1.2
	25	25	20.69		1.2
	50	0	20.80		1.2
256QAM	1	0	18.78	0-5	3.2
	1	25	18.98		3.2
	1	49	18.64		3.2
	25	0	18.75		3.2
	25	12	18.84		3.2
	25	25	18.70		3.2
	50	0	18.78		3.2

10.3.1 LTE Band 26

Table 10-21
LTE Band 26 Ant A Measured P_{Max} for all DSI - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.72	0	0
	1	36	**23.75**		0
	1	74	23.62		0
	36	0	**22.72**	0-1	1
	36	18	22.71		1
	36	37	22.69		1
	75	0	22.61		1
16QAM	1	0	22.83	0-1	1
	1	36	22.86		1
	1	74	22.79		1
	36	0	21.75	0-2	2
	36	18	21.74		2
	36	37	21.73		2
	75	0	21.68		2
64QAM	1	0	21.93	0-2	2
	1	36	22.00		2
	1	74	21.90		2
	36	0	20.78	0-3	3
	36	18	20.73		3
	36	37	20.68		3
	75	0	20.71		3
256QAM	1	0	18.84	0-5	5
	1	36	19.04		5
	1	74	18.86		5
	36	0	18.77		5
	36	18	18.76		5
	36	37	18.70		5
	75	0	18.76		5

Table 10-22
LTE Band 26 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	23.37	0	0
	1	36	**23.38**		0
	1	74	23.11		0
	36	0	**22.50**	0-1	1
	36	18	22.42		1
	36	37	22.41		1
	75	0	22.44		1
16QAM	1	0	22.55	0-1	1
	1	36	22.54		1
	1	74	22.63		1
	36	0	21.44	0-2	2
	36	18	21.49		2
	36	37	21.41		2
	75	0	21.49		2
64QAM	1	0	21.59	0-2	2
	1	36	21.66		2
	1	74	21.58		2
	36	0	20.48	0-3	3
	36	18	20.47		3
	36	37	20.50		3
	75	0	20.45		3
256QAM	1	0	18.47	0-5	5
	1	36	18.64		5
	1	74	18.43		5
	36	0	18.45		5
	36	18	18.43		5
	36	37	18.47		5
	75	0	18.50		5

Table 10-23
LTE Band 26 Ant E Measured P_{Limit} for DSI = 1 (Head) - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**21.48**	0	0
	1	36	21.22		0
	1	74	21.34		0
	36	0	21.20	0-1	0
	36	18	**21.22**		0
	36	37	21.17		0
	75	0	21.12		0
16QAM	1	0	21.39	0-1	0
	1	36	21.39		0
	1	74	21.42		0
	36	0	21.19	0-2	0
	36	18	21.25		0
	36	37	21.23		0
	75	0	21.27		0
64QAM	1	0	21.32	0-2	0
	1	36	21.50		0
	1	74	21.21		0
	36	0	20.50	0-3	0.5
	36	18	20.45		0.5
	36	37	20.48		0.5
	75	0	20.40		0.5
256QAM	1	0	18.43	0-5	2.5
	1	36	18.49		2.5
	1	74	18.41		2.5
	36	0	18.50		2.5
	36	18	18.43		2.5
	36	37	18.38		2.5
	75	0	18.45		2.5

10.3.2 LTE Band 66

Table 10-24
LTE Band 66 (AWS) Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.83	18.45	18.83	0	0
	1	50	**18.98**	18.31	18.85		0
	1	99	18.63	18.13	18.61		0
	50	0	**18.98**	18.66	18.65	0-1	0
	50	25	18.77	18.66	18.73		0
	50	50	18.68	18.54	18.68		0
	100	0	18.72	18.59	18.70		0
16QAM	1	0	18.80	18.68	18.89	0-1	0
	1	50	18.82	18.61	18.96		0
	1	99	18.64	18.47	18.77		0
	50	0	18.86	18.65	18.64	0-2	0
	50	25	18.79	18.66	18.76		0
	50	50	18.69	18.56	18.70		0
	100	0	18.71	18.59	18.69		0
64QAM	1	0	19.07	18.89	18.73	0-2	0
	1	50	19.04	18.89	18.94		0
	1	99	18.89	18.61	18.84		0
	50	0	18.86	18.64	18.66	0-3	0
	50	25	18.79	18.64	18.75		0
	50	50	18.69	18.54	18.70		0
	100	0	18.73	18.60	18.75		0
256QAM	1	0	18.64	18.32	18.27	0-5	0
	1	50	18.67	18.30	18.56		0
	1	99	18.41	18.10	18.32		0
	50	0	18.47	18.25	18.25		0
	50	25	18.38	18.24	18.37		0
	50	50	18.25	18.17	18.25		0
	100	0	18.32	18.16	18.33		0

Table 10-25
LTE Band 66 (AWS) Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.78	18.77	18.55	0	0
	1	25	18.79	18.46	18.51		0
	1	49	18.43	18.61	18.42		0
	25	0	18.84	18.59	18.64	0-1	0
	25	12	18.87	18.57	18.71		0
	25	25	18.76	18.54	18.71		0
	50	0	18.85	18.60	18.70		0
16QAM	1	0	19.04	18.83	18.86	0-1	0
	1	25	19.01	18.68	18.88		0
	1	49	18.83	18.58	18.76		0
	25	0	18.89	18.62	18.66	0-2	0
	25	12	18.90	18.60	18.72		0
	25	25	18.78	18.61	18.74		0
	50	0	18.88	18.62	18.73		0
64QAM	1	0	18.94	18.93	18.83	0-2	0
	1	25	19.00	18.82	18.82		0
	1	49	19.01	18.69	18.73		0
	25	0	18.90	18.64	18.70	0-3	0
	25	12	18.89	18.68	18.75		0
	25	25	18.79	18.61	18.72		0
	50	0	18.87	18.58	18.71		0
256QAM	1	0	18.78	18.37	18.43	0-5	0
	1	25	18.71	18.35	18.54		0
	1	49	18.40	18.28	18.42		0
	25	0	18.50	18.23	18.20		0
	25	12	18.51	18.23	18.35		0
	25	25	18.38	18.19	18.24		0
	50	0	18.51	18.18	18.33		0

Table 10-26
LTE Band 66 (AWS) Ant A Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	50	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	50	50	18.64	18.65
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	25	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	25	25	18.48	18.64

Table 10-27
LTE Band 66 (AWS) Ant A Measured P_{Max} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**23.57**	23.52	23.45	0	0
	1	50	23.47	23.46	23.51		0
	1	99	23.27	23.31	23.51		0
	50	0	**22.51**	22.33	22.43	0-1	1
	50	25	22.46	22.34	22.50		1
	50	50	22.34	22.29	22.44		1
	100	0	22.37	22.31	22.44		1
16QAM	1	0	22.69	22.52	22.43	0-1	1
	1	50	22.78	22.46	22.51		1
	1	99	22.67	22.17	22.42		1
	50	0	21.54	21.35	21.40	0-2	2
	50	25	21.41	21.35	21.51		2
	50	50	21.31	21.27	21.46		2
	100	0	21.37	21.29	21.45		2
64QAM	1	0	21.75	21.47	21.54	0-2	2
	1	50	21.74	21.43	21.65		2
	1	99	21.40	21.24	21.54		2
	50	0	20.55	20.38	20.41	0-3	3
	50	25	20.44	20.35	20.52		3
	50	50	20.34	20.27	20.46		3
	100	0	20.42	20.32	20.47		3
256QAM	1	0	18.68	18.83	18.78	0-5	5
	1	50	18.71	18.90	19.06		5
	1	99	18.54	18.69	18.84		5
	50	0	18.54	18.38	18.43		5
	50	25	18.51	18.38	18.51		5
	50	50	18.41	18.31	18.50		5
	100	0	18.44	18.36	18.49		5

Table 10-28
LTE Band 66 (AWS) Ant A Measured P_{Max} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.53	23.23	23.37	0	0
	1	25	23.46	23.16	23.37		0
	1	49	23.37	23.14	23.31		0
	25	0	22.51	22.33	22.41	0-1	1
	25	12	22.53	22.33	22.53		1
	25	25	22.43	22.29	22.49		1
	50	0	22.51	22.33	22.52		1
16QAM	1	0	22.67	22.39	22.74	0-1	1
	1	25	22.72	22.58	22.82		1
	1	49	22.60	22.41	22.53		1
	25	0	21.56	21.32	21.47	0-2	2
	25	12	21.58	21.35	21.57		2
	25	25	21.42	21.32	21.53		2
	50	0	21.54	21.29	21.54		2
64QAM	1	0	21.84	21.68	21.70	0-2	2
	1	25	21.87	21.56	21.72		2
	1	49	21.71	21.53	21.56		2
	25	0	20.60	20.38	20.48	0-3	3
	25	12	20.60	20.37	20.57		3
	25	25	20.48	20.34	20.53		3
	50	0	20.58	20.36	20.56		3
256QAM	1	0	19.05	18.67	18.86	0-5	5
	1	25	19.08	18.72	18.90		5
	1	49	18.80	18.65	18.77		5
	25	0	18.53	18.36	18.45		5
	25	12	18.61	18.36	18.54		5
	25	25	18.46	18.34	18.51		5
	50	0	18.57	18.32	18.56		5

Table 10-29
LTE Band 66 (AWS) Ant A Uplink Carrier Aggregation Measured for P_{Max} for DSI = 1 (Head)

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	1	99	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	1	0	23.50	23.27
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	1	49	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	1	0	23.56	23.37

Table 10-30
LTE Band 66 (AWS) Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.28	20.41	20.41	0	0
	1	50	20.41	20.43	**20.61**		0
	1	99	20.29	20.46	20.57		0
	50	0	20.40	20.44	20.49	0-1	0
	50	25	20.42	20.43	**20.62**		0
	50	50	20.36	20.34	20.58		0
	100	0	20.33	20.31	20.54		0
16QAM	1	0	20.36	20.56	20.46	0-1	0
	1	50	20.26	20.47	20.71		0
	1	99	20.30	20.70	20.51		0
	50	0	20.39	20.43	20.58	0-2	0
	50	25	20.40	20.41	20.67		0
	50	50	20.33	20.38	20.59		0
	100	0	20.37	20.39	20.59		0
64QAM	1	0	20.59	20.42	20.52	0-2	0
	1	50	20.59	20.48	20.83		0
	1	99	20.55	20.52	20.56		0
	50	0	20.01	19.97	20.11	0-3	0
	50	25	20.02	19.99	20.21		0
	50	50	19.94	19.92	20.15		0
	100	0	19.99	19.98	20.17		0
256QAM	1	0	18.29	18.07	18.06	0-5	2
	1	50	18.10	18.11	18.27		2
	1	99	18.05	18.01	18.17		2
	50	0	18.02	17.98	18.06		2
	50	25	18.04	17.98	18.16		2
	50	50	17.91	17.93	18.16		2
	100	0	17.94	18.01	18.13		2

Table 10-31
LTE Band 66 (AWS) Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.41	20.18	20.53	0	0
	1	25	20.36	20.11	20.71		0
	1	49	20.29	20.13	20.59		0
	25	0	20.45	20.35	20.58	0-1	0
	25	12	20.45	20.33	20.53		0
	25	25	20.41	20.32	20.59		0
	50	0	20.43	20.32	20.52		0
16QAM	1	0	20.59	20.47	20.95	0-1	0
	1	25	20.68	20.48	20.90		0
	1	49	20.50	20.49	20.75		0
	25	0	20.52	20.39	20.52	0-2	0
	25	12	20.52	20.40	20.53		0
	25	25	20.48	20.37	20.62		0
	50	0	20.44	20.38	20.59		0
64QAM	1	0	20.72	20.29	20.80	0-2	0
	1	25	20.69	20.44	20.82		0
	1	49	20.55	20.50	20.64		0
	25	0	19.97	20.05	20.16	0-3	0
	25	12	20.09	20.04	20.26		0
	25	25	19.98	20.02	20.27		0
	50	0	20.03	19.99	20.15		0
256QAM	1	0	18.20	18.22	18.41	0-5	2
	1	25	18.22	18.25	18.57		2
	1	49	18.15	18.19	18.28		2
	25	0	17.98	17.94	18.17		2
	25	12	17.99	17.96	18.05		2
	25	25	18.03	17.88	18.20		2
	50	0	18.01	17.98	18.15		2

Table 10-32
LTE Band 66 (AWS) Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	1	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	1	99	20.56	20.41
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	1	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	1	49	20.47	20.53

Table 10-33
LTE Band 66 (AWS) Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.69	18.67	**19.01**	0	0
	1	50	18.63	18.82	18.96		0
	1	99	18.55	18.54	18.95		0
	50	0	18.62	18.67	**18.86**	0-1	0
	50	25	18.58	18.65	18.80		0
	50	50	18.53	18.60	18.81		0
	100	0	18.53	18.64	18.79		0
16QAM	1	0	18.91	18.90	18.92	0-1	0
	1	50	18.81	18.87	18.97		0
	1	99	18.73	18.83	18.89		0
	50	0	18.70	18.89	18.91	0-2	0
	50	25	18.58	18.90	18.93		0
	50	50	18.52	18.89	18.91		0
	100	0	18.55	18.91	18.97		0
64QAM	1	0	18.80	18.89	18.93	0-2	0
	1	50	18.70	18.90	18.99		0
	1	99	18.71	18.85	18.92		0
	50	0	18.67	18.88	18.89	0-3	0
	50	25	18.60	18.85	18.98		0
	50	50	18.50	18.92	18.92		0
	100	0	18.54	18.90	18.94		0
256QAM	1	0	18.57	18.56	18.54	0-5	0
	1	50	18.45	18.43	18.67		0
	1	99	18.44	18.53	18.66		0
	50	0	18.39	18.40	18.47		0
	50	25	18.32	18.39	18.58		0
	50	50	18.31	18.34	18.56		0
	100	0	18.33	18.37	18.56		0

Table 10-34
LTE Band 66 (AWS) Ant F Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.77	18.89	19.12	0	0
	1	25	18.84	18.88	19.12		0
	1	49	18.72	18.92	19.03		0
	25	0	18.66	18.96	19.09	0-1	0
	25	12	18.70	18.90	19.08		0
	25	25	18.78	19.01	19.04		0
	50	0	18.54	18.60	18.63		0
16QAM	1	0	18.86	18.91	19.08	0-1	0
	1	25	18.85	18.98	19.07		0
	1	49	18.86	18.92	19.04		0
	25	0	18.71	18.91	19.05	0-2	0
	25	12	18.75	18.87	19.14		0
	25	25	18.72	18.85	19.03		0
	50	0	18.69	18.87	19.03		0
64QAM	1	0	18.80	18.93	19.09	0-2	0
	1	25	18.89	18.94	19.10		0
	1	49	18.92	18.96	18.98		0
	25	0	18.75	18.98	19.01	0-3	0
	25	12	18.73	18.90	19.10		0
	25	25	18.69	18.97	19.07		0
	50	0	18.70	18.95	19.09		0
256QAM	1	0	18.62	18.53	18.70	0-5	0
	1	25	18.65	18.54	18.86		0
	1	49	18.53	18.39	18.68		0
	25	0	18.45	18.41	18.55		0
	25	12	18.51	18.42	18.57		0
	25	25	18.41	18.37	18.62		0
	50	0	18.43	18.39	18.58		0

Table 10-35
LTE Band 66 (AWS) Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 1 (Head)

	PCC										SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770	67036	2170	QPSK	100	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	100	0	18.70	18.79
CA_66B	LTE B66	10	132622	1775	67086	2175	QPSK	50	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	50	0	18.57	18.63

10.3.3 LTE Band 25

Table 10-36
LTE Band 25 (PCS) Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	17.69	17.51	17.91	0	0
	1	50	17.69	17.57	17.97		0
	1	99	17.75	17.56	**17.98**		0
	50	0	17.62	17.83	17.93	0-1	0
	50	25	17.75	17.81	**17.94**		0
	50	50	17.78	17.82	17.92		0
	100	0	17.73	17.77	17.92		0
16QAM	1	0	17.62	17.98	18.13	0-1	0
	1	50	17.85	18.11	18.16		0
	1	99	17.88	17.95	18.12		0
	50	0	17.65	17.82	17.95	0-2	0
	50	25	17.75	17.80	17.95		0
	50	50	17.78	17.81	17.92		0
	100	0	17.73	17.78	17.90		0
64QAM	1	0	17.77	18.09	18.04	0-2	0
	1	50	17.86	17.95	18.17		0
	1	99	17.91	18.10	18.13		0
	50	0	17.64	17.79	17.95	0-3	0
	50	25	17.73	17.81	18.00		0
	50	50	17.81	17.87	17.92		0
	100	0	17.70	17.79	17.93		0
256QAM	1	0	17.72	17.86	17.99	0-5	0
	1	50	17.90	18.02	18.04		0
	1	99	17.91	17.87	18.07		0
	50	0	17.63	17.79	17.96		0
	50	25	17.75	17.84	17.98		0
	50	50	17.77	17.81	17.89		0
	100	0	17.73	17.83	17.95		0

Table 10-37
LTE Band 25 (PCS) Ant A Measured P_{Max} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.22	23.42	23.62	0	0
	1	50	23.06	23.60	23.74		0
	1	99	23.06	23.50	**23.75**		0
	50	0	22.27	22.40	22.62	0-1	1
	50	25	22.42	22.48	**22.70**		1
	50	50	22.38	22.45	22.66		1
	100	0	22.32	22.41	22.64		1
16QAM	1	0	22.31	22.41	22.82	0-1	1
	1	50	22.57	22.62	22.74		1
	1	99	22.31	22.48	22.80		1
	50	0	21.24	21.46	21.54	0-2	2
	50	25	21.41	21.46	21.71		2
	50	50	21.35	21.46	21.68		2
	100	0	21.32	21.44	21.62		2
64QAM	1	0	21.52	21.69	21.61	0-2	2
	1	50	21.73	21.81	21.72		2
	1	99	21.69	21.66	21.78		2
	50	0	20.29	20.44	20.60	0-3	3
	50	25	20.42	20.32	20.73		3
	50	50	20.38	20.42	20.67		3
	100	0	20.30	20.40	20.66		3
256QAM	1	0	18.39	18.55	18.60	0-5	5
	1	50	18.52	18.83	18.84		5
	1	99	18.38	18.55	18.66		5
	50	0	18.20	18.45	18.60		5
	50	25	18.39	18.48	18.72		5
	50	50	18.32	18.41	18.61		5
	100	0	18.32	18.41	18.64		5

Table 10-38
LTE Band 25 (PCS) Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**20.05**	19.92	20.04	0	0
	1	50	19.82	19.92	19.70		0
	1	99	19.83	19.71	19.78		0
	50	0	19.82	19.95	19.89	0-1	0
	50	25	19.97	19.96	19.84		0
	50	50	**20.04**	19.83	19.83		0
	100	0	19.92	19.90	19.89		0
16QAM	1	0	19.97	20.20	20.02	0-1	0
	1	50	20.04	20.13	20.09		0
	1	99	20.06	20.02	20.03		0
	50	0	19.86	19.93	19.89	0-2	0
	50	25	19.99	19.97	19.92		0
	50	50	20.04	19.99	19.83		0
	100	0	19.94	19.99	19.90		0
64QAM	1	0	20.36	20.08	20.00	0-2	0
	1	50	20.05	20.02	20.01		0
	1	99	20.02	20.07	20.08		0
	50	0	19.89	20.00	19.94	0-3	0
	50	25	20.00	19.98	20.00		0
	50	50	20.05	19.95	19.85		0
	100	0	19.99	19.95	19.94		0
256QAM	1	0	18.70	18.80	18.74	0-5	1.5
	1	50	18.69	18.84	18.72		1.5
	1	99	18.70	18.76	18.63		1.5
	50	0	18.53	18.71	18.59		1.5
	50	25	18.75	18.68	18.66		1.5
	50	50	18.74	18.61	18.59		1.5
	100	0	18.64	18.65	18.65		1.5

Table 10-39
LTE Band 25 (PCS) Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.82	18.81	18.66	0	0
	1	50	18.78	18.82	**19.04**		0
	1	99	18.83	18.64	18.65		0
	50	0	18.87	18.97	18.86	0-1	0
	50	25	**19.02**	18.94	18.87		0
	50	50	19.01	18.89	18.89		0
	100	0	18.96	18.97	18.86		0
16QAM	1	0	18.91	19.06	18.86	0-1	0
	1	50	19.14	19.18	19.03		0
	1	99	19.16	19.02	19.13		0
	50	0	18.79	18.92	18.93	0-2	0
	50	25	18.98	18.97	18.94		0
	50	50	19.00	18.88	18.83		0
	100	0	18.93	18.88	18.87		0
64QAM	1	0	18.89	19.13	19.08	0-2	0
	1	50	19.11	19.31	18.96		0
	1	99	19.07	19.11	19.08		0
	50	0	18.82	18.88	18.91	0-3	0
	50	25	18.97	18.98	18.91		0
	50	50	18.99	18.96	18.85		0
	100	0	18.94	18.97	18.91		0
256QAM	1	0	18.67	18.80	18.78	0-5	0
	1	50	18.75	18.78	18.70		0
	1	99	18.76	18.57	18.72		0
	50	0	18.52	18.70	18.64		0
	50	25	18.70	18.73	18.61		0
	50	50	18.72	18.59	18.55		0
	100	0	18.74	18.68	18.68		0

10.3.4 LTE Band 30

Table 10-40
LTE Band 30 Ant A Measured P_{Plimit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	19.44	0	0
	1	25	**19.53**		0
	1	49	19.36		0
	25	0	19.48	0-1	0
	25	12	**19.52**		0
	25	25	19.50		0
	50	0	19.50		0
16QAM	1	0	19.72	0-1	0
	1	25	19.88		0
	1	49	19.81		0
	25	0	19.53	0-2	0
	25	12	19.58		0
	25	25	19.51		0
	50	0	19.54		0
64QAM	1	0	19.70	0-2	0
	1	25	19.84		0
	1	49	19.74		0
	25	0	19.56	0-3	0
	25	12	19.59		0
	25	25	19.53		0
	50	0	19.54		0
256QAM	1	0	17.59	0-5	2
	1	25	17.93		2
	1	49	17.56		2
	25	0	17.54		2
	25	12	17.59		2
	25	25	17.57		2
	50	0	17.53		2

Table 10-41
LTE Band 30 Ant A Measured P_{Max} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	22.42	0	0
	1	25	**22.52**		0
	1	49	22.43		0
	25	0	21.51	0-1	1
	25	12	**21.58**		1
	25	25	21.54		1
	50	0	21.54		1
16QAM	1	0	21.73	0-1	1
	1	25	21.94		1
	1	49	21.82		1
	25	0	20.54	0-2	2
	25	12	20.57		2
	25	25	20.51		2
	50	0	20.55		2
64QAM	1	0	20.76	0-2	2
	1	25	20.81		2
	1	49	20.78		2
	25	0	19.38	0-3	3
	25	12	19.56		3
	25	25	19.57		3
	50	0	19.18		3
256QAM	1	0	17.73	0-5	5
	1	25	17.83		5
	1	49	17.60		5
	25	0	17.53		5
	25	12	17.58		5
	25	25	17.54		5
	50	0	17.53		5

Table 10-42
LTE Band 30 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	20.10	0	0
	1	25	20.00		0
	1	49	**20.11**		0
	25	0	**20.05**	0-1	0
	25	12	20.01		0
	25	25	20.00		0
	50	0	20.03		0
16QAM	1	0	20.16	0-1	0
	1	25	20.21		0
	1	49	20.13		0
	25	0	20.10	0-2	0
	25	12	20.02		0
	25	25	19.99		0
	50	0	20.01		0
64QAM	1	0	20.23	0-2	0
	1	25	20.20		0
	1	49	20.10		0
	25	0	19.38	0-3	0.5
	25	12	19.23		0.5
	25	25	19.22		0.5
	50	0	19.19		0.5
256QAM	1	0	17.40	0-5	2.5
	1	25	17.30		2.5
	1	49	17.12		2.5
	25	0	17.24		2.5
	25	12	17.22		2.5
	25	25	17.25		2.5
	50	0	17.17		2.5

Table 10-43
LTE Band 30 Ant F Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	17.55	0	0
	1	25	**17.61**		0
	1	49	17.59		0
	25	0	17.44	0-1	0
	25	12	**17.45**		0
	25	25	17.16		0
	50	0	17.35		0
16QAM	1	0	17.70	0-1	0
	1	25	17.84		0
	1	49	17.60		0
	25	0	17.55	0-2	0
	25	12	17.42		0
	25	25	17.48		0
	50	0	17.56		0
64QAM	1	0	17.63	0-2	0
	1	25	17.59		0
	1	49	17.55		0
	25	0	17.49	0-3	0
	25	12	17.48		0
	25	25	17.40		0
	50	0	17.35		0
256QAM	1	0	17.61	0-5	0.5
	1	25	17.50		0.5
	1	49	17.44		0.5
	25	0	17.52		0.5
	25	12	17.40		0.5
	25	25	17.43		0.5
	50	0	17.46		0.5

10.3.5 LTE Band 7

Table 10-44
LTE Band 7 Ant B Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.78	19.64	19.75	0	0
	1	50	**19.93**	19.60	19.77		0
	1	99	19.86	19.52	19.69		0
	50	0	19.85	19.88	19.77	0-1	0
	50	25	**19.94**	19.89	19.77		0
	50	50	19.92	19.85	19.67		0
	100	0	19.87	19.82	19.74		0
16QAM	1	0	19.96	20.02	19.99	0-1	0
	1	50	20.06	20.12	20.05		0
	1	99	19.82	19.97	19.96		0
	50	0	19.83	19.85	19.78	0-2	0
	50	25	19.94	19.87	19.79		0
	50	50	19.89	19.85	19.66		0
	100	0	19.92	19.85	19.75		0
64QAM	1	0	19.91	20.07	20.05	0-2	0
	1	50	19.95	20.10	19.97		0
	1	99	19.91	19.91	19.80		0
	50	0	19.86	19.86	19.75	0-3	0
	50	25	19.95	19.87	19.77		0
	50	50	19.88	19.85	19.68		0
	100	0	19.92	19.83	19.76		0
256QAM	1	0	18.01	18.08	18.00	0-5	1.5
	1	50	18.13	18.18	18.02		1.5
	1	99	18.02	18.03	17.91		1.5
	50	0	17.98	17.95	17.89		1.5
	50	25	18.11	18.07	17.90		1.5
	50	50	17.94	18.00	17.80		1.5
	100	0	18.03	17.99	17.87		1.5

Table 10-45
LTE Band 7 Ant B Measured P_{Max} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.84	22.79	22.80	0	0
	1	50	**23.12**	22.80	22.82		0
	1	99	22.69	23.02	22.77		0
	50	0	22.01	22.03	21.91	0-1	1
	50	25	**22.12**	22.06	21.91		1
	50	50	22.06	22.03	21.81		1
	100	0	22.09	22.00	21.89		1
16QAM	1	0	22.21	22.34	21.98	0-1	1
	1	50	22.32	22.29	21.94		1
	1	99	22.17	22.23	21.89		1
	50	0	21.02	21.05	20.92	0-2	2
	50	25	21.09	21.06	20.91		2
	50	50	21.07	21.03	20.82		2
	100	0	21.09	21.02	20.91		2
64QAM	1	0	21.13	21.03	21.00	0-2	2
	1	50	21.17	21.14	21.07		2
	1	99	21.23	21.20	20.93		2
	50	0	19.99	20.00	19.94	0-3	3
	50	25	20.10	20.05	19.93		3
	50	50	20.03	19.97	19.79		3
	100	0	20.07	20.00	19.91		3
256QAM	1	0	18.12	18.09	17.94	0-5	5
	1	50	18.31	18.27	18.06		5
	1	99	18.17	18.10	17.92		5
	50	0	18.01	17.99	17.89		5
	50	25	18.11	18.05	17.94		5
	50	50	18.08	18.04	17.84		5
	100	0	18.07	18.02	17.89		5

Table 10-46
LTE Band 7 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**19.37**	19.21	19.21	0	0
	1	50	18.93	19.04	19.35		0
	1	99	18.92	19.20	19.36		0
	50	0	19.06	19.24	19.38	0-1	0
	50	25	19.20	19.37	19.50		0
	50	50	19.22	19.36	**19.52**		0
	100	0	19.17	19.30	19.31		0
16QAM	1	0	19.42	19.55	19.40	0-1	0
	1	50	19.15	19.59	19.41		0
	1	99	19.25	19.25	19.42		0
	50	0	19.08	19.28	19.46	0-2	0
	50	25	19.21	19.39	19.58		0
	50	50	19.17	19.35	19.49		0
	100	0	19.16	19.26	19.56		0
64QAM	1	0	19.01	19.50	19.29	0-2	0
	1	50	19.51	19.43	19.65		0
	1	99	19.55	19.58	19.62		0
	50	0	19.10	19.30	19.43	0-3	0
	50	25	19.22	19.35	19.44		0
	50	50	19.18	19.36	19.56		0
	100	0	19.20	19.40	19.63		0
256QAM	1	0	17.22	17.55	17.77	0-5	1.5
	1	50	17.49	17.74	17.82		1.5
	1	99	17.61	17.66	17.79		1.5
	50	0	17.27	17.56	17.71		1.5
	50	25	17.43	17.56	17.77		1.5
	50	50	17.49	17.55	17.73		1.5
	100	0	17.46	17.52	17.81		1.5

Table 10-47
LTE Band 7 Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	15.28	15.21	15.48	0	0
	1	50	15.41	15.28	15.49		0
	1	99	15.04	15.37	**15.51**		0
	50	0	15.20	15.33	15.46	0-1	0
	50	25	15.29	15.40	**15.54**		0
	50	50	15.34	15.43	15.53		0
	100	0	15.26	15.38	15.50		0
16QAM	1	0	15.31	15.32	15.75	0-1	0
	1	50	15.42	15.45	15.73		0
	1	99	15.52	15.42	15.83		0
	50	0	15.18	15.34	15.44	0-2	0
	50	25	15.29	15.43	15.53		0
	50	50	15.34	15.40	15.56		0
	100	0	15.24	15.41	15.51		0
64QAM	1	0	15.43	15.58	15.65	0-2	0
	1	50	15.52	15.47	15.61		0
	1	99	15.60	15.47	15.73		0
	50	0	15.32	15.40	15.63	0-3	0
	50	25	15.52	15.44	15.73		0
	50	50	15.44	15.46	15.78		0
	100	0	15.41	15.51	15.66		0
256QAM	1	0	15.16	15.32	15.38	0-5	0
	1	50	15.31	15.47	15.51		0
	1	99	15.34	15.43	15.54		0
	50	0	15.07	15.23	15.30		0
	50	25	15.28	15.28	15.45		0
	50	50	15.25	15.33	15.44		0
	100	0	15.23	15.27	15.43		0

10.3.6 LTE Band 41

Table 10-48
LTE Band 41 PC3 Ant B Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.42	21.42	21.48	21.38	**21.63**	0	0
	1	50	21.40	21.59	21.49	21.32	21.62		0
	1	99	21.41	21.39	21.31	21.24	21.38		0
	50	0	21.35	21.53	21.43	21.32	21.47	0-1	0
	50	25	21.49	21.53	21.41	21.32	**21.66**		0
	50	50	21.45	21.48	21.28	21.30	21.54		0
	100	0	21.42	21.48	21.34	21.29	21.54		0
16QAM	1	0	21.37	21.62	21.55	21.35	21.87	0-1	0
	1	50	21.62	21.67	21.61	21.57	21.91		0
	1	99	21.65	21.44	21.40	21.32	21.54		0
	50	0	21.36	21.58	21.41	21.35	21.64	0-2	0
	50	25	21.48	21.58	21.40	21.33	21.62		0
	50	50	21.44	21.50	21.29	21.29	21.58		0
	100	0	21.44	21.48	21.38	21.30	21.54		0
64QAM	1	0	21.28	21.50	21.45	21.39	21.71	0-2	0
	1	50	21.40	21.80	21.26	21.44	21.69		0
	1	99	21.47	21.31	20.93	21.21	21.39		0
	50	0	20.68	20.85	20.69	20.66	20.88	0-3	0.5
	50	25	20.80	20.84	20.70	20.58	20.92		0.5
	50	50	20.76	20.74	20.57	20.61	20.85		0.5
	100	0	20.75	20.75	20.65	20.59	20.81		0.5
256QAM	1	0	18.70	18.99	18.72	18.91	18.84	0-5	2.5
	1	50	18.93	19.03	18.78	18.80	19.02		2.5
	1	99	18.78	18.74	18.52	18.54	18.81		2.5
	50	0	18.65	18.73	18.67	18.59	18.84		2.5
	50	25	18.72	18.80	18.66	18.59	18.91		2.5
	50	50	18.69	18.72	18.54	18.60	18.81		2.5
	100	0	18.70	18.75	18.61	18.56	18.80		2.5

Table 10-49
LTE Band 41 PC3 Ant B Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	21.49	21.63

Table 10-50
LTE Band 41 PC2 Ant B Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.11	23.18	23.15	23.10	23.13	0	0
	1	50	23.24	23.26	23.16	23.20	23.14		0
	1	99	23.14	22.99	22.91	23.00	22.92		0
	50	0	23.15	23.37	23.24	23.11	23.32	0-1	0
	50	25	23.29	23.39	23.23	23.09	23.38		0
	50	50	23.28	23.29	23.10	23.11	23.30		0
	100	0	23.24	23.25	23.15	23.05	23.24		0

Table 10-51
LTE Band 41 PC2 Ant B Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	1	0	LTE B41 PC2	20	41292	2660.2	QPSK	1	99	23.20	23.13

Table 10-52
LTE Band 41 PC3 Ant B Measured P_{Max} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.86	24.07	23.76	23.76	24.10	0	0
	1	50	23.96	24.13	23.76	23.89	**24.17**		0
	1	99	23.94	23.98	23.54	23.71	23.95		0
	50	0	22.79	22.98	22.82	22.72	22.95	0-1	1
	50	25	22.93	23.00	22.82	22.74	**23.01**		1
	50	50	22.86	22.90	22.67	22.75	22.93		1
	100	0	22.83	22.92	22.75	22.69	22.91		1
16QAM	1	0	22.92	22.96	22.78	22.87	23.09	0-1	1
	1	50	22.97	23.00	22.87	22.94	23.25		1
	1	99	22.95	22.94	22.56	22.80	22.86		1
	50	0	21.78	21.98	21.81	21.71	21.95	0-2	2
	50	25	21.92	22.00	21.78	21.70	22.01		2
	50	50	21.83	21.92	21.69	21.70	21.92		2
	100	0	21.81	21.93	21.73	21.67	21.87		2
64QAM	1	0	21.83	21.98	21.86	21.71	21.94	0-2	2
	1	50	21.98	22.26	21.73	21.88	22.04		2
	1	99	21.81	21.96	21.46	21.70	21.83		2
	50	0	20.72	20.95	20.82	20.65	20.92	0-3	3
	50	25	20.85	20.98	20.75	20.70	20.97		3
	50	50	20.81	20.90	20.69	20.67	20.88		3
	100	0	20.82	20.92	20.76	20.64	20.84		3
256QAM	1	0	18.86	18.87	18.92	18.81	18.84	0-5	5
	1	50	18.88	19.01	18.90	18.85	18.96		5
	1	99	18.75	18.65	18.58	18.63	18.77		5
	50	0	18.74	18.87	18.81	18.73	18.93		5
	50	25	18.87	18.92	18.79	18.67	18.96		5
	50	50	18.82	18.81	18.66	18.66	18.86		5
	100	0	18.82	18.85	18.72	18.61	18.86		5

Table 10-53
LTE Band 41 PC3 Ant B Uplink Carrier Aggregation Measured for P_{Max} for DSI = 1 (Head)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	24.09	24.10

Table 10-54
LTE Band 41 PC2 Ant B Measured P_{Max} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	25.59	25.44	25.57	25.29	25.63	0	0
	1	50	25.60	25.52	25.58	25.39	25.64		0
	1	99	25.63	25.36	25.33	25.18	25.45		0
	50	0	24.55	24.70	24.53	24.42	24.63	0-1	1
	50	25	24.70	24.72	24.56	24.44	24.73		1
	50	50	24.65	24.66	24.46	24.45	24.60		1
	100	0	24.64	24.64	24.49	24.36	24.61		1

Table 10-55
LTE Band 41 PC2 Ant B Uplink Carrier Aggregation Measured for P_{Max} for DSI = 1 (Head)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	1	0	LTE B41 PC2	20	41292	2660.2	QPSK	1	99	25.85	25.63

Table 10-56
LTE Band 41 PC3 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.07	21.23	21.35	21.39	**21.44**	0	0
	1	50	21.11	21.25	21.41	21.41	21.40		0
	1	99	21.04	21.24	21.20	21.22	21.14		0
	50	0	21.13	21.18	21.38	21.36	**21.43**	0-1	0
	50	25	21.15	21.34	21.42	21.34	21.41		0
	50	50	21.11	21.27	21.35	21.37	21.30		0
	100	0	21.08	21.17	21.39	21.27	21.30		0
16QAM	1	0	21.21	21.21	21.34	21.54	21.40	0-1	0
	1	50	21.16	21.34	21.48	21.49	21.38		0
	1	99	21.19	21.21	21.22	21.40	21.08		0
	50	0	21.10	21.15	21.36	21.33	21.37	0-2	0
	50	25	21.17	21.30	21.43	21.32	21.41		0
	50	50	21.10	21.23	21.29	21.30	21.28		0
	100	0	21.11	21.14	21.36	21.29	21.28		0
64QAM	1	0	21.10	21.19	21.26	21.27	21.44	0-2	0
	1	50	21.11	21.30	21.26	21.36	21.55		0
	1	99	21.21	21.28	21.05	21.04	21.10		0
	50	0	20.56	20.62	20.81	20.78	20.83	0-3	0.5
	50	25	20.58	20.75	20.87	20.80	20.84		0.5
	50	50	20.53	20.70	20.78	20.76	20.75		0.5
	100	0	20.53	20.65	20.84	20.75	20.78		0.5
256QAM	1	0	18.63	18.48	18.76	18.96	18.72	0-5	2.5
	1	50	18.81	18.88	18.85	19.00	18.95		2.5
	1	99	18.74	18.60	18.63	18.69	18.69		2.5
	50	0	18.50	18.54	18.83	18.80	18.79		2.5
	50	25	18.52	18.71	18.85	18.81	18.80		2.5
	50	50	18.52	18.69	18.76	18.77	18.70		2.5
	100	0	18.49	18.61	18.83	18.75	18.70		2.5

Table 10-57
LTE Band 41 PC3 Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	39750	2506.0	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	20.95	21.04

Table 10-58
LTE Band 41 PC2 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	22.65	22.80	23.16	23.04	23.03	0	0
	1	50	22.65	22.99	23.18	23.08	23.06		0
	1	99	22.66	22.88	22.97	22.82	22.77		0
	50	0	22.78	22.92	23.13	23.08	23.08	0-1	0
	50	25	22.88	23.06	23.15	23.15	23.12		0
	50	50	22.84	23.22	23.12	23.08	23.03		0
	100	0	22.80	22.90	23.14	23.07	23.01		0

Table 10-59
LTE Band 41 PC2 Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	39750	2506.0	QPSK	1	99	LTE B41 PC2	20	39948	2525.8	QPSK	1	0	22.61	22.66

Table 10-60
LTE Band 41 PC3 Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	18.83	18.53	18.82	18.79	**18.90**	0	0
	1	50	18.88	18.56	18.87	18.88	18.87		0
	1	99	18.67	18.59	18.63	18.62	18.58		0
	50	0	18.81	18.58	18.82	18.82	**18.92**	0-1	0
	50	25	18.85	18.72	18.89	18.88	18.80		0
	50	50	18.78	18.66	18.77	18.77	18.79		0
	100	0	18.82	18.53	18.83	18.81	18.78		0
16QAM	1	0	18.84	18.55	18.89	18.84	18.95	0-1	0
	1	50	18.85	18.66	18.91	18.86	18.93		0
	1	99	18.72	18.55	18.73	18.62	18.56		0
	50	0	18.84	18.58	18.85	18.85	18.85	0-2	0
	50	25	18.89	18.73	18.93	18.90	18.91		0
	50	50	18.76	18.65	18.79	18.80	18.77		0
	100	0	18.86	18.52	18.84	18.82	18.76		0
64QAM	1	0	18.82	18.60	18.63	18.68	18.87	0-2	0
	1	50	18.89	18.67	18.86	18.81	18.70		0
	1	99	18.45	18.50	18.59	18.54	18.43		0
	50	0	18.85	18.58	18.82	18.88	18.86	0-3	0
	50	25	18.87	18.69	18.90	18.92	18.93		0
	50	50	18.75	18.60	18.80	18.82	18.78		0
	100	0	18.81	18.53	18.83	18.86	18.80		0
256QAM	1	0	18.65	18.23	18.63	18.70	18.69	0-5	0
	1	50	18.71	18.62	18.86	18.72	18.67		0
	1	99	18.40	18.30	18.58	18.47	18.59		0
	50	0	18.61	18.34	18.61	18.62	18.61		0
	50	25	18.66	18.47	18.69	18.64	18.65		0
	50	50	18.57	18.40	18.54	18.56	18.56		0
	100	0	18.63	18.31	18.66	18.61	18.54		0

Table 10-61
LTE Band 41 PC3 Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 1 (Head)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	18.81	18.90

Table 10-62
LTE Band 41 PC2 Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.23	20.16	20.54	20.52	20.54	0	0
	1	50	20.29	20.30	20.60	20.41	20.61		0
	1	99	20.18	20.23	20.37	20.26	20.31		0
	50	0	20.30	20.29	20.48	20.50	20.61	0-1	0
	50	25	20.34	20.40	20.59	20.49	20.67		0
	50	50	20.26	20.37	20.48	20.49	20.58		0
	100	0	20.24	20.25	20.50	20.43	20.55		0

Table 10-63
LTE Band 41 PC2 Ant F Uplink Carrier Aggregation Measured for P_{Limit} for DSI = 1 (Head)

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	1	0	LTE B41 PC2	20	41292	2660.2	QPSK	1	99	20.51	20.54

10.3.7 LTE Band 48

Table 10-64
LTE Band 48 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55340 (3560.0 MHz)	Low-Mid Channel 55773 (3603.3 MHz)	Mid-High Channel 56207 (3646.7 MHz)	High Channel 56640 (3690.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	**22.08**	21.68	21.62	21.44	0	0
	1	50	22.01	21.73	21.72	21.41		0
	1	99	21.99	21.69	21.68	21.30		0
	50	0	**21.61**	21.29	21.24	20.91	0-1	0.5
	50	25	21.49	21.18	21.28	20.83		0.5
	50	50	21.54	21.24	21.22	20.72		0.5
	100	0	21.49	21.20	21.29	20.94		0.5
16QAM	1	0	21.50	21.58	21.51	20.82	0-1	0.5
	1	50	21.80	21.27	21.33	20.90		0.5
	1	99	21.26	21.47	21.13	20.84		0.5
	50	0	20.47	20.41	20.30	19.95	0-2	1.5
	50	25	20.52	20.28	20.19	19.87		1.5
	50	50	20.55	20.20	20.20	19.92		1.5
	100	0	20.48	20.25	20.28	19.81		1.5
64QAM	1	0	20.67	20.24	20.05	19.80	0-2	1.5
	1	50	20.58	20.27	20.59	20.14		1.5
	1	99	20.35	20.20	20.24	19.87		1.5
	50	0	19.57	19.28	19.35	18.90	0-3	2.5
	50	25	19.47	19.22	19.26	18.97		2.5
	50	50	19.52	19.21	19.26	18.85		2.5
	100	0	19.49	19.17	19.16	18.91		2.5
256QAM	1	0	17.29	17.28	17.13	16.98	0-5	4.5
	1	50	17.36	17.08	17.33	16.90		4.5
	1	99	17.46	17.21	17.06	16.82		4.5
	50	0	17.48	17.17	17.24	16.96		4.5
	50	25	17.58	17.25	17.30	16.95		4.5
	50	50	17.51	17.20	17.27	16.91		4.5
	100	0	17.42	17.22	17.20	16.93		4.5

Table 10-65
LTE Band 48 Ant F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48C	LTE B48	20	55340	3560.0	QPSK	1	99	LTE B48	20	55538	3579.8	QPSK	1	0	21.70	21.99

Table 10-66
LTE Band 48 Ant F Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55340 (3560.0 MHz)	55773 (3603.3 MHz)	56207 (3646.7 MHz)	56640 (3690.0 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	**19.03**	18.79	18.64	18.41	0	0
	1	50	18.92	18.71	18.81	18.43		0
	1	99	18.96	18.68	18.83	18.45		0
	50	0	**19.05**	18.88	18.77	18.59	0-1	0
	50	25	18.99	18.75	18.91	18.55		0
	50	50	19.02	18.71	18.81	18.46		0
	100	0	18.97	18.75	18.88	18.45		0
16QAM	1	0	19.10	18.60	18.57	18.55	0-1	0
	1	50	18.87	18.88	18.69	18.70		0
	1	99	19.18	18.90	18.87	18.61		0
	50	0	19.09	18.79	18.85	18.54	0-2	0
	50	25	19.01	18.82	18.91	18.66		0
	50	50	19.06	18.91	18.78	18.61		0
	100	0	18.89	18.68	18.86	18.51		0
64QAM	1	0	19.24	18.79	18.75	18.60	0-2	0
	1	50	18.87	19.12	18.84	18.53		0
	1	99	19.01	18.87	18.82	18.42		0
	50	0	19.19	18.83	18.79	18.48	0-3	0
	50	25	18.93	18.75	18.86	18.52		0
	50	50	18.96	18.72	18.89	18.51		0
	100	0	19.02	18.64	18.87	18.49		0
256QAM	1	0	17.34	17.15	17.07	17.17	0-5	1
	1	50	17.52	17.26	17.18	17.06		1
	1	99	17.51	17.13	17.40	17.04		1
	50	0	17.44	17.32	17.37	17.01		1
	50	25	17.50	17.34	17.34	17.08		1
	50	50	17.48	17.24	17.35	17.00		1
	100	0	17.42	17.36	17.23	17.10		1

Table 10-67
LTE Band 48 Ant F Uplink Carrier Aggregation Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_48C	LTE B48	20	56640	3690.0	QPSK	50	0	LTE B48	20	56442	3670.2	QPSK	50	50	18.44	18.59

Figure 10-3
Power Measurement Setup

10.4 NR Conducted Powers

Per October 2020 TCB Workshop Guidance, NR FR1 SAR evaluations are being generally based on adapting the existing LTE SAR procedures (FCC KDB Publication 941225 D05v02r05). Therefore, NR SAR for the lower bandwidths was not required for testing based on the measured output power and the reported NR SAR for the highest bandwidth. Lower bandwidth conducted powers for all NR bands can be found in LTE and NR Lower Bandwidth RF Conducted Powers Appendix.

Note: Some bands do not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

10.4.1 NR Band n71

Table 10-68
NR Band n71 Ant A Measured P_{Max} for all DSI - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	23.80	0	0.0
	1	53	24.06		0.0
	1	104	**24.10**		0.0
	50	0	22.87	0-1	1.0
	50	28	**24.04**	0	0.0
	50	56	23.17	0-1	1.0
	100	0	23.08		1.0
DFT-s-OFDM 16QAM	1	1	22.39	0-1	1.0
CP-OFDM QPSK	1	1	22.39	0-1.5	1.5

Table 10-69
NR Band n71 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	23.00	0	0.0
	1	53	**23.43**		0.0
	1	104	23.40		0.0
	50	0	22.29	0-1	1.0
	50	28	**23.35**	0	0.0
	50	56	22.42	0-1	1.0
	100	0	22.46		1.0
DFT-s-OFDM 16QAM	1	1	21.64	0-1	1.0
CP-OFDM QPSK	1	1	21.64	0-1.5	1.5

Table 10-70
NR Band n71 Ant E Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	22.26	0	0.0
	1	53	**22.58**		0.0
	1	104	22.44		0.0
	50	0	22.37	0-1	0.0
	50	28	**22.54**	0	0.0
	50	56	22.47	0-1	0.0
	100	0	22.50		0.0
DFT-s-OFDM 16QAM	1	1	21.83	0-1	0.0
CP-OFDM QPSK	1	1	22.32	0-1.5	0.0

10.4.2 NR Band n12

Table 10-71
NR Band n12 Ant A Measured P_{Max} for all DSI - 15 MHz Bandwidth

NR Band n12 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	141500 (707.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**24.39**	0	0.0
	1	40	24.25		0.0
	1	77	24.23		0.0
	36	0	23.35	0-1	1.0
	36	22	**24.32**	0	0.0
	36	43	23.29	0-1	1.0
	75	0	23.32		1.0
DFT-s-OFDM 16QAM	1	1	23.19	0-1	1.0
CP-OFDM QPSK	1	1	23.01	0-1.5	1.5

Table 10-72
NR Band n12 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 15 MHz Bandwidth

NR Band n12 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	141500 (707.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	23.74	0	0.0
	1	40	23.79		0.0
	1	77	**23.85**		0.0
	36	0	22.94	0-1	1.0
	36	22	**23.86**	0	0.0
	36	43	22.95	0-1	1.0
	75	0	22.91		1.0
DFT-s-OFDM 16QAM	1	1	22.65	0-1	1.0
CP-OFDM QPSK	1	1	22.36	0-1.5	1.5

Table 10-73
NR Band n12 Ant E Measured P_{Limit} for DSI = 1 (Head) - 15 MHz Bandwidth

NR Band n12 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	141500 (707.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	21.22	0	0.0
	1	40	21.22		0.0
	1	77	**21.34**		0.0
	36	0	21.30	0-1	0.0
	36	22	21.35	0	0.0
	36	43	**21.37**	0-1	0.0
	75	0	21.33		0.0
DFT-s-OFDM 16QAM	1	1	21.21	0-1	0.0
CP-OFDM QPSK	1	1	21.41	0-1.5	0.0

10.4.3 NR Band n26

Table 10-74
NR Band n26 Ant A Measured P_{Max} for all DSI - 20 MHz Bandwidth

NR Band n26 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	166300 (831.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	24.00	0	0.0
	1	53	**24.02**		0.0
	1	104	23.95		0.0
	50	0	22.88	0-1	1.0
	50	28	**23.93**	0	0.0
	50	56	22.90	0-1	1.0
	100	0	23.00		1.0
DFT-s-OFDM 16QAM	1	1	22.77	0-1	1.0
CP-OFDM QPSK	1	1	22.50	0-1.5	1.5

Table 10-75
NR Band n26 Ant E Measured P_{Max} for DSI = 0 (Body-worn, Hotspot or Phablet) - 20 MHz Bandwidth

NR Band n26 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	166300 (831.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	23.15	0	0.0
	1	53	**23.29**		0.0
	1	104	23.28		0.0
	50	0	22.25	0-1	1.0
	50	28	**23.18**	0	0.0
	50	56	22.11	0-1	1.0
	100	0	22.29		1.0
DFT-s-OFDM 16QAM	1	1	21.97	0-1	1.0
CP-OFDM QPSK	1	1	21.80	0-1.5	1.5

Table 10-76
NR Band n26 Ant E Measured P_{Limit} for DSI = 1 (Head) - 20 MHz Bandwidth

NR Band n26 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	166300 (831.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	20.46	0	0.0
	1	53	**20.55**		0.0
	1	104	20.51		0.0
	50	0	20.44	0-1	0.0
	50	28	**20.52**	0	0.0
	50	56	20.44	0-1	0.0
	100	0	20.50		0.0
DFT-s-OFDM 16QAM	1	1	20.25	0-1	0.0
CP-OFDM QPSK	1	1	20.61	0-1.5	0.0

10.4.1 NR Band n70

Table 10-77
NR Band n70 Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 15 MHz Bandwidth

NR Band n70 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	340500 (1702.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**18.77**	0	0.0
	1	40	18.60		0.0
	1	77	18.60		0.0
	36	0	18.67	0-1	0.0
	36	22	**18.76**	0	0.0
	36	43	18.60	0-1	0.0
	75	0	18.75		0.0
DFT-s-OFDM 16QAM	1	1	18.87	0-1	0.0
CP-OFDM QPSK	1	1	18.74	0-1.5	0.0

Table 10-78
NR Band n70 Ant A Measured P_{Max} for DSI = 1 (Head) - 15 MHz Bandwidth

NR Band n70 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	340500 (1702.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**23.09**	0	0.0
	1	40	22.97		0.0
	1	77	22.89		0.0
	36	0	22.00	0-1	1.0
	36	22	**22.92**	0	0.0
	36	43	21.92	0-1	1.0
	75	0	21.83		1.0
DFT-s-OFDM 16QAM	1	1	22.00	0-1	1.0
CP-OFDM QPSK	1	1	21.69	0-1.5	1.5

Table 10-79
NR Band n70 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 15 MHz Bandwidth

NR Band n70 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	340500 (1702.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	20.50	0	0.0
	1	40	20.48		0.0
	1	77	**20.64**		0.0
	36	0	20.60	0-1	0.0
	36	22	20.60	0	0.0
	36	43	**20.73**	0-1	0.0
	75	0	20.59		0.0
DFT-s-OFDM 16QAM	1	1	20.63	0-1	0.0
CP-OFDM QPSK	1	1	20.89	0-1.5	0.0

Table 10-80
NR Band n70 Ant F Measured P_{Limit} for DSI = 1 (Head) - 15 MHz Bandwidth

NR Band n70 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	340500 (1702.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	18.47	0	0.0
	1	40	18.53		0.0
	1	77	**18.79**		0.0
	36	0	18.60	0-1	0.0
	36	22	18.52	0	0.0
	36	43	**18.68**	0-1	0.0
	75	0	18.53		0.0
DFT-s-OFDM 16QAM	1	1	18.49	0-1	0.0
CP-OFDM QPSK	1	1	18.55	0-1.5	0.0

10.4.2 NR Band n66

Table 10-81
NR Band n66 Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	19.13	0	0.0
	1	108	**19.31**		0.0
	1	214	19.27		0.0
	108	0	19.12	0-1	0.0
	108	54	19.25	0	0.0
	108	108	**19.30**	0-1	0.0
	216	0	19.22		0.0
DFT-s-OFDM 16QAM	1	1	19.00	0-1	0.0
CP-OFDM QPSK	1	1	19.13	0-1.5	0.0

Table 10-82
NR Band n66 Ant A Measured P_{Max} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	23.81	0	0.0
	1	108	**23.99**		0.0
	1	214	23.93		0.0
	108	0	22.90	0-1	1.0
	108	54	**23.95**	0	0.0
	108	108	22.88	0-1	1.0
	216	0	22.86		1.0
DFT-s-OFDM 16QAM	1	1	22.69	0-1	1.0
CP-OFDM QPSK	1	1	22.16	0-1.5	1.5

Table 10-83
NR Band n66 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	20.82	0	0.0
	1	108	20.63		0.0
	1	214	**20.93**		0.0
	108	0	**20.87**	0-1	0.0
	108	54	20.80	0	0.0
	108	108	20.71	0-1	0.0
	216	0	20.76		0.0
DFT-s-OFDM 16QAM	1	1	20.74	0-1	0.0
CP-OFDM QPSK	1	1	20.91	0-1.5	0.0

Table 10-84
NR Band n66 Ant F Measured P_{Limit} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	18.84	0	0.0
	1	108	18.80		0.0
	1	214	**18.92**		0.0
	108	0	**18.88**	0-1	0.0
	108	54	18.79	0	0.0
	108	108	18.72	0-1	0.0
	216	0	18.74		0.0
DFT-s-OFDM 16QAM	1	1	18.69	0-1	0.0
CP-OFDM QPSK	1	1	19.02	0-1.5	0.0

10.4.3 NR Band n25

Table 10-85
NR Band n25 Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**17.97**	0	0.0
	1	108	17.83		0.0
	1	214	17.72		0.0
	108	0	**17.86**	0-1	0.0
	108	54	17.84	0	0.0
	108	108	17.67	0-1	0.0
	216	0	17.85		0.0
DFT-s-OFDM 16QAM	1	1	17.96	0-1	0.0
CP-OFDM QPSK	1	1	17.96	0-1.5	0.0

Table 10-86
NR Band n25 Ant A Measured P_{Max} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**23.99**	0	0.0
	1	108	23.72		0.0
	1	214	23.70		0.0
	108	0	22.83	0-1	1.0
	108	54	**23.85**	0	0.0
	108	108	22.67	0-1	1.0
	216	0	22.82		1.0
DFT-s-OFDM 16QAM	1	1	22.81	0-1	1.0
CP-OFDM QPSK	1	1	22.08	0-1.5	1.5

Table 10-87
NR Band n25 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**19.80**	0	0.0
	1	108	19.76		0.0
	1	214	19.51		0.0
	108	0	**19.89**	0-1	0.0
	108	54	19.81	0	0.0
	108	108	19.73	0-1	0.0
	216	0	19.71		0.0
DFT-s-OFDM 16QAM	1	1	19.76	0-1	0.0
CP-OFDM QPSK	1	1	19.79	0-1.5	0.0

Table 10-88
NR Band n25 Ant F Measured P_{Limit} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**18.90**	0	0.0
	1	108	18.79		0.0
	1	214	18.55		0.0
	108	0	**18.84**	0-1	0.0
	108	54	18.81	0	0.0
	108	108	18.73	0-1	0.0
	216	0	18.75		0.0
DFT-s-OFDM 16QAM	1	1	19.01	0-1	0.0
CP-OFDM QPSK	1	1	19.08	0-1.5	0.0

10.4.4 NR Band n30

Table 10-89
NR Band n30 Ant A Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	19.86	0	0.0
	1	26	**19.93**		0.0
	1	50	19.92		0.0
	25	0	19.88	0-1	0.0
	25	14	**19.93**	0	0.0
	25	27	19.89	0-1	0.0
	50	0	19.84		0.0
DFT-s-OFDM 16QAM	1	1	19.59	0-1	0.0
CP-OFDM QPSK	1	1	19.99	0-1.5	0.0

Table 10-90
NR Band n30 Ant A Measured P_{Max} for DSI = 1 (Head) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**22.95**	0	0.0
	1	26	22.55		0.0
	1	50	22.21		0.0
	25	0	21.89	0-1	1.0
	25	14	**22.85**	0	0.0
	25	27	21.95	0-1	1.0
	50	0	21.89		1.0
DFT-s-OFDM 16QAM	1	1	21.56	0-1	1.0
CP-OFDM QPSK	1	1	21.42	0-1.5	1.5

Table 10-91
NR Band n30 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**19.99**	0	0.0
	1	26	19.91		0.0
	1	50	19.94		0.0
	25	0	**19.98**	0-1	0.0
	25	14	19.90	0	0.0
	25	27	19.90	0-1	0.0
	50	0	19.88		0.0
DFT-s-OFDM 16QAM	1	1	19.80	0-1	0.0
CP-OFDM QPSK	1	1	20.27	0-1.5	0.0

Table 10-92
NR Band n30 Ant F Measured P_{Limit} for DSI = 1 (Head) - 10 MHz Bandwidth

NR Band n30 10 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	462000 (2310 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**17.52**	0	0.0
	1	26	17.47		0.0
	1	50	17.45		0.0
	25	0	17.44	0-1	0.0
	25	14	**17.48**	0	0.0
	25	27	17.38	0-1	0.0
	50	0	17.44		0.0
DFT-s-OFDM 16QAM	1	1	17.22	0-1	0.0
CP-OFDM QPSK	1	1	17.54	0-1.5	0.0

10.4.5 NR Band n7

Table 10-93
NR Band n7 Ant B Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**20.28**	0	0.0
	1	108	20.16		0.0
	1	214	20.11		0.0
	108	0	**20.24**	0-1	0.0
	108	54	20.16	0	0.0
	108	108	20.12	0-1	0.0
	216	0	20.17		0.0
DFT-s-OFDM 16QAM	1	1	20.16	0-1	0.0
CP-OFDM QPSK	1	1	20.36	0-1.5	0.0

Table 10-94
NR Band n7 Ant B Measured P_{Max} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**23.34**	0	0.0
	1	108	23.27		0.0
	1	214	23.23		0.0
	108	0	22.37	0-1	1.0
	108	54	**23.24**	0	0.0
	108	108	22.31	0-1	1.0
	216	0	22.33		1.0
DFT-s-OFDM 16QAM	1	1	22.21	0-1	1.0
CP-OFDM QPSK	1	1	21.94	0-1.5	1.5

Table 10-95
NR Band n7 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**19.43**	0	0.0
	1	108	19.36		0.0
	1	214	19.25		0.0
	108	0	19.47	0-1	0.0
	108	54	**19.48**	0	0.0
	108	108	19.33	0-1	0.0
	216	0	19.27		0.0
DFT-s-OFDM 16QAM	1	1	19.24	0-1	0.0
CP-OFDM QPSK	1	1	19.60	0-1.5	0.0

Table 10-96
NR Band n7 Ant F Measured P_{Limit} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n7 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507000 (2535 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**15.46**	0	0.0
	1	108	15.42		0.0
	1	214	15.35		0.0
	108	0	15.37	0-1	0.0
	108	54	**15.42**	0	0.0
	108	108	15.29	0-1	0.0
	216	0	15.36		0.0
DFT-s-OFDM 16QAM	1	1	15.37	0-1	0.0
CP-OFDM QPSK	1	1	15.52	0-1.5	0.0

10.4.6 NR Band n41

Table 10-97
NR Band n41 PC2 Antenna F Path 1 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	19.35	0	0.0
	1	137	**19.54**		0.0
	1	271	19.45		0.0
	135	0	19.40	0-1	0.0
	135	69	**19.55**	0	0.0
	135	138	19.45	0-1	0.0
	270	0	19.49		0.0
DFT-s-OFDM 16QAM	1	1	19.40	0-1	0.0
CP-OFDM QPSK	1	1	19.51	0-1.5	0.0

Table 10-98
NR Band n41 PC2 Antenna F Path 1 Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	17.22	0	0.0
	1	137	**17.43**		0.0
	1	271	17.33		0.0
	135	0	17.28	0-1	0.0
	135	69	**17.42**	0	0.0
	135	138	17.40	0-1	0.0
	270	0	17.36		0.0
DFT-s-OFDM 16QAM	1	1	17.24	0-1	0.0
CP-OFDM QPSK	1	1	17.25	0-1.5	0.0

Table 10-99
NR Band n41 PC2 Antenna B Path 1 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) and NR Band n41 PC2 Antenna E & D Path 1 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) and P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #1 Ant B	18.39
SRS #2 Ant E	17.76
SRS #3 Ant D	16.35

Table 10-100
NR Band n41 PC2 Antenna B Path 2 Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #1 Ant B	19.25

Table 10-101
NR Band n41 PC2 Antenna B Path 2 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**20.43**	0	0.0
	1	137	20.33		0.0
	1	271	20.17		0.0
	135	0	**20.35**	0-1	0.0
	135	69	20.24	0	0.0
	135	138	20.13	0-1	0.0
	270	0	20.27		0.0
DFT-s-OFDM 16QAM	1	1	20.41	0-1	0.0
CP-OFDM QPSK	1	1	20.45	0-1.5	0.0

Table 10-102
NR Band n41 PC2 Antenna B Path 2 Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**21.41**	0	0.0
	1	137	21.26		0.0
	1	271	21.12		0.0
	135	0	**21.23**	0-1	0.0
	135	69	21.20	0	0.0
	135	138	21.12	0-1	0.0
	270	0	21.21		0.0
DFT-s-OFDM 16QAM	1	1	21.37	0-1	0.0
CP-OFDM QPSK	1	1	21.33	0-1.5	0.0

Table 10-103
NR Band n41 PC2 Antenna F Path 2 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) and NR Band n41 PC2 Antenna D & E Path 2 Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) and P_{Limit} for DSI = 1 (Head)

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #1 Ant F	16.48
SRS #2 Ant D	17.37
SRS #3 Ant E	14.76

Table 10-104
NR Band n41 PC2 Antenna F Path 2 Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth	
	Channel
Antenna	518598 (2592.99 MHz)
	Conducted Power [dBm]
SRS #1 Ant F	14.94

10.4.7 NR Band n48

Table 10-105
NR Band n48 Ant F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	19.84	20.15	20.46	0	0.0
	1	53	19.78	20.14	20.35		0.0
	1	104	19.99	20.26	**20.58**		0.0
	50	0	19.79	20.10	20.37	0-1	0.0
	50	28	19.95	20.21	**20.52**	0	0.0
	50	56	19.87	20.24	20.48	0-1	0.0
	100	0	19.91	20.23	20.51		0.0
DFT-s-OFDM 16QAM	1	1	19.77	20.02	20.41	0-1	0.0
CP-OFDM QPSK	1	1	19.87	20.16	20.56	0-1.5	0.0

Table 10-106
NR Band n48 Ant F Measured P_{Limit} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	16.93	17.25	17.43	0	0.0
	1	53	16.86	17.18	17.34		0.0
	1	104	17.07	17.32	**17.50**		0.0
	50	0	16.87	17.24	17.37	0-1	0.0
	50	28	16.93	17.26	**17.46**	0	0.0
	50	56	17.03	17.32	17.43	0-1	0.0
	100	0	16.95	17.31	17.45		0.0
DFT-s-OFDM 16QAM	1	1	16.87	17.18	17.45	0-1	0.0
CP-OFDM QPSK	1	1	16.98	17.32	17.49	0-1.5	0.0

Table 10-107
NR Band n48 Antenna C, I, D Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth			
	Channel		
Antenna	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)
	Conducted Power [dBm]		
SRS #1 Ant C	14.23	14.86	**14.96**
SRS #2 Ant I	19.13	**19.40**	19.18
SRS #3 Ant D	14.20	14.92	**15.05**

Table 10-108
NR Band n48 Antenna C, I, D Measured P_{Limit} for DSI = 1 (Head) - 40 MHz Bandwidth

NR Band n48 40 MHz Bandwidth			
	Channel		
Antenna	638000 (3570 MHz)	641666 (3624.99 MHz)	645332 (3679.98 MHz)
	Conducted Power [dBm]		
SRS #1 Ant C	11.38	11.95	**12.13**
SRS #2 Ant I	16.07	**16.45**	16.16
SRS #3 Ant D	11.48	12.17	**12.33**

10.4.8 NR Band n77

Table 10-109
NR Band n77 DoD Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	633334 (3500.01 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**19.13**	0	0.0
	1	137	18.79		0.0
	1	271	18.97		0.0
	135	0	19.05	0-1	0.0
	135	69	18.86	0	0.0
	135	138	18.87	0-1	0.0
	270	0	18.85		0.0
DFT-s-OFDM 16QAM	1	1	19.06	0-1	0.0
CP-OFDM QPSK	1	1	19.03	0-1.5	0.0

Table 10-110
NR Band n77 DoD Antenna F Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	633334 (3500.01 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**16.50**	0	0.0
	1	137	16.24		0.0
	1	271	16.38		0.0
	135	0	16.36	0-1	0.0
	135	69	16.28	0	0.0
	135	138	16.32	0-1	0.0
	270	0	16.34		0.0
DFT-s-OFDM 16QAM	1	1	16.54	0-1	0.0
CP-OFDM QPSK	1	1	16.76	0-1.5	0.0

Table 10-111
NR Band n77 DoD Antenna C, I, D Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth	
	Channel
Antenna	633334 (3500.01 MHz)
	Conducted Power [dBm]
SRS #1 Ant C	14.24
SRS #2 Ant I	16.28
SRS #3 Ant D	14.48

Table 10-112
NR Band n77 DoD Antenna C, I, D Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n77 DoD 100 MHz Bandwidth	
	Channel
Antenna	633334 (3500.01 MHz)
	Conducted Power [dBm]
SRS #1 Ant C	11.01
SRS #2 Ant I	12.79
SRS #3 Ant D	11.16

Table 10-113
NR Band n77 Antenna F Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	650000 (3750 MHz)	662000 (3930 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	**19.47**	19.40	0	0.0
	1	137	19.40	18.98		0.0
	1	271	19.10	19.31		0.0
	135	0	**19.42**	19.16	0-1	0.0
	135	69	19.40	18.97	0	0.0
	135	138	19.25	19.06	0-1	0.0
	270	0	19.34	19.08		0.0
DFT-s-OFDM 16QAM	1	1	19.49	19.34	0-1	0.0
CP-OFDM QPSK	1	1	19.49	19.46	0-1.5	0.0

Table 10-114
NR Band n77 Antenna F Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	650000 (3750 MHz)	662000 (3930 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	**16.88**	16.85	0	0.0
	1	137	16.74	16.44		0.0
	1	271	16.54	16.82		0.0
	135	0	**16.82**	16.72	0-1	0.0
	135	69	16.80	16.47	0	0.0
	135	138	16.68	16.63	0-1	0.0
	270	0	16.80	16.68		0.0
DFT-s-OFDM 16QAM	1	1	16.92	16.81	0-1	0.0
CP-OFDM QPSK	1	1	16.99	16.97	0-1.5	0.0

Table 10-115
NR Band n77 Antenna C, I, D Measured P_{Limit} for DSI = 0 (Body-worn, Hotspot or Phablet) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth		
	Channel	
Antenna	650000 (3750 MHz)	662000 (3930 MHz)
	Conducted Power [dBm]	
SRS #1 Ant C	15.20	**15.22**
SRS #2 Ant I	16.13	**16.94**
SRS #3 Ant D	15.23	**15.33**

Table 10-116
NR Band n77 Antenna C, I, D Measured P_{Limit} for DSI = 1 (Head) - 100 MHz Bandwidth

NR Band n77 100 MHz Bandwidth		
	Channel	
Antenna	650000 (3750 MHz)	662000 (3930 MHz)
	Conducted Power [dBm]	
SRS #1 Ant C	11.99	**12.05**
SRS #2 Ant I	12.64	**13.37**
SRS #3 Ant D	11.84	**11.87**

Figure 10-4
Power Measurement Setup – NR FDD

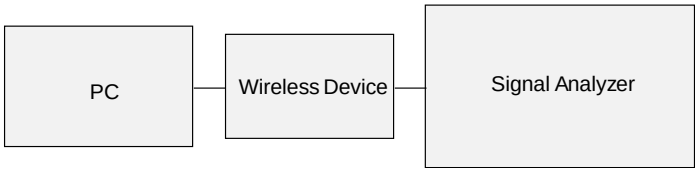


Figure 10-5
Power Measurement Setup – NR TDD

10.5 WLAN Conducted Powers

Table 10-117
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant H

2.4GHz WIFI (20MHz 802.11b SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.52
2437	6		16.31
2462	11		16.59
2.4GHz WIFI (20MHz 802.11g SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.05
2437	6		15.89
2462	11		16.11
2.4GHz WIFI (20MHz 802.11n SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.37
2437	6		16.29
2462	11		16.52
2.4GHz WIFI (20MHz 802.11ac SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.68
2437	6		16.50
2462	11		16.67
2.4GHz WIFI (20MHz 802.11ax SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.77
2417	2		16.40
2437	6		16.24
2457	10		16.33
2462	11		15.39
2.4GHz WIFI (20MHz 802.11be SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.68
2417	2		16.41
2437	6		16.24
2457	10		16.40
2462	11		15.39

Table 10-118
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant J

2.4GHz WIFI (20MHz 802.11b SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.47
2437	6		16.17
2462	11		16.41
2.4GHz WIFI (20MHz 802.11g SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.54
2437	6		15.60
2462	11		15.88
2.4GHz WIFI (20MHz 802.11n SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.19
2437	6		16.02
2462	11		16.01
2.4GHz WIFI (20MHz 802.11ac SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	16.55
2437	6		16.52
2462	11		16.32
2.4GHz WIFI (20MHz 802.11ax SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.51
2417	2		16.81
2437	6		16.73
2457	10		16.64
2462	11		15.71
2.4GHz WIFI (20MHz 802.11be SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.52
2417	2		16.81
2437	6		16.74
2457	10		16.65
2462	11		15.70

Table 10-119
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – MIMO

2.4GHz WIFI (20MHz 802.11b MIMO)					
Freq [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**		
			ANT1	**ANT2**	**MIMO**
2412	1	Average	16.52	16.47	19.51
2437	6		16.31	16.17	19.25
2462	11		16.57	16.41	19.50

Table 10-120
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant H

2.4GHz WIFI (20MHz 802.11b SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	18.44
2437	6		18.24
2462	11		18.51
2.4GHz WIFI (20MHz 802.11g SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.32
2437	6		17.17
2462	11		17.34
2.4GHz WIFI (20MHz 802.11n SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.33
2437	6		17.29
2462	11		17.48
2.4GHz WIFI (20MHz 802.11ac SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.35
2437	6		17.11
2462	11		17.28
2.4GHz WIFI (20MHz 802.11ax SISO ANT H			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.41
2417	2		17.40
2437	6		17.25
2457	10		17.28
2462	11		15.23
2.4GHz WIFI (20MHz 802.11be SISO ANT H)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.35
2417	2		17.27
2437	6		17.32
2457	10		17.15
2462	11		15.28

Table 10-121
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant J

2.4GHz WIFI (20MHz 802.11b SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	18.25
2437	6		18.13
2462	11		18.26
2.4GHz WIFI (20MHz 802.11g SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.33
2437	6		17.20
2462	11		17.40
2.4GHz WIFI (20MHz 802.11n SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.22
2437	6		17.25
2462	11		17.29
2.4GHz WIFI (20MHz 802.11ac SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	17.32
2437	6		17.25
2462	11		17.40
2.4GHz WIFI (20MHz 802.11ax SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.40
2417	2		17.22
2437	6		17.32
2457	10		17.25
2462	11		15.33
2.4GHz WIFI (20MHz 802.11be SISO ANT J)			
Freq. [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**
2412	1	Average	15.21
2417	2		17.40
2437	6		17.27
2457	10		17.36
2462	11		15.29

Table 10-122
2.4 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – MIMO

2.4GHz WIFI (20MHz 802.11b MIMO)					
Freq [MHz]	**Channel**	**Detector**	**Conducted Power [dBm]**		
			ANT1	**ANT2**	**MIMO**
2412	1	Average	18.44	18.25	21.36
2437	6		18.24	18.13	21.20
2462	11		18.51	18.26	21.40

Table 10-123
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant H

5GHz WIFI (80MHz 802.11ac SISO ANT H)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.41
UNII-2A	5290	58	15.48
UNII-2C	5530	106	15.51
	5610	122	15.61
	5690	138	15.59
UNII-3	5775	155	15.55
UNII-4	5885	171	15.52
5GHz WIFI (80MHz 802.11ax SISO ANT H)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.35
UNII-2A	5290	58	15.45
UNII-2C	5530	106	15.52
	5610	122	15.41
	5690	138	15.47
UNII-3	5775	155	15.55
UNII-4	5885	171	15.41
5GHz WIFI (80MHz 802.11be SISO ANT H)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.37
UNII-2A	5290	58	15.40
UNII-2C	5530	106	15.33
	5610	122	15.42
	5690	138	15.54
UNII-3	5775	155	15.60
UNII-4	5885	171	15.34

Table 10-124
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant E

5GHz WIFI (80MHz 802.11ac SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.31
UNII-2A	5290	58	15.34
UNII-2C	5530	106	15.67
	5610	122	15.59
	5690	138	15.73
UNII-3	5775	155	15.54
UNII-4	5885	171	15.42
5GHz WIFI (80MHz 802.11ax SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.29
UNII-2A	5290	58	15.33
UNII-2C	5530	106	15.45
	5610	122	15.52
	5690	138	15.49
UNII-3	5775	155	15.52
UNII-4	5885	171	15.37
5GHz WIFI (80MHz 802.11be SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	15.25
UNII-2A	5290	58	15.42
UNII-2C	5530	106	15.45
	5610	122	15.55
	5690	138	15.60
UNII-3	5775	155	15.52
UNII-4	5885	171	15.39

Table 10-125
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 1 (Head) – MIMO

5GHz WIFI (80MHz 802.11ac MIMO)					
Band	Freq [MHz]	Channel	Avg. Conducted Powers [dBm]		
			ANT1	ANT2	MIMO
UNII-1	5210	42	15.14	15.39	18.28
UNII-2A	5290	58	15.58	15.43	18.52
UNII-2C	5530	106	15.63	15.81	18.73
	5610	122	15.71	15.74	18.74
	5690	138	15.68	15.83	18.77
UNII-3	5775	155	15.63	15.64	18.65
UNII-4	5885	171	15.59	15.57	18.59

Table 10-126
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant H

5GHz WIFI (80MHz 802.11ac SISO ANT H)			
Band	Freq. [MHz]	Channel	Avg. Conducted Power [dBm]
UNII-1	5210	42	17.54
UNII-2A	5290	58	17.74
UNII-2C	5530	106	17.70
	5610	122	17.86
	5690	138	17.79
UNII-3	5775	155	17.87
UNII-4	5885	171	17.91
5GHz WIFI (80MHz 802.11ax SISO ANT H)			
Band	Freq. [MHz]	Channel	Avg. Conducted Power [dBm]
UNII-1	5210	42	16.72
UNII-2A	5290	58	16.10
UNII-2C	5530	106	17.50
	5610	122	17.62
	5690	138	17.58
UNII-3	5775	155	17.44
UNII-4	5885	171	17.52
5GHz WIFI (80MHz 802.11be SISO ANT H)			
Band	Freq. [MHz]	Channel	Avg. Conducted Power [dBm]
UNII-1	5210	42	16.97
UNII-2A	5290	58	16.12
UNII-2C	5530	106	17.46
	5610	122	17.54
	5690	138	17.73
UNII-3	5775	155	17.49
UNII-4	5885	171	17.61

Table 10-127
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant E

5GHz WIFI (80MHz 802.11ac SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	17.61
UNII-2A	5290	58	17.59
UNII-2C	5530	106	17.56
	5610	122	17.52
	5690	138	17.57
UNII-3	5775	155	17.75
UNII-4	5885	171	17.57
5GHz WIFI (80MHz 802.11ax SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	16.65
UNII-2A	5290	58	16.10
UNII-2C	5530	106	17.56
	5610	122	17.70
	5690	138	17.64
UNII-3	5775	155	17.55
UNII-4	5885	171	17.62
5GHz WIFI (80MHz 802.11be SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-1	5210	42	16.82
UNII-2A	5290	58	15.90
UNII-2C	5530	106	17.86
	5610	122	17.89
	5690	138	17.93
UNII-3	5775	155	17.57
UNII-4	5885	171	17.45

Table 10-128
5 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – MIMO

5GHz WIFI (80MHz 802.11ac MIMO)					
Band	**Freq [MHz]**	**Channel**	**Avg. Conducted Powers [dBm]**		
			ANT1	**ANT2**	**MIMO**
UNII-1	5210	42	17.31	17.59	20.46
UNII-2A	5290	58	17.53	17.70	20.63
UNII-2C	5530	106	17.76	17.90	20.84
	5610	122	17.67	17.53	20.61
	5690	138	17.67	17.60	20.65
UNII-3	5775	155	17.61	17.62	20.63
UNII-4	5885	171	17.53	17.81	20.68

Table 10-129
6 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn or Phablet), DSI = 1 (Head) – Ant H

6GHz WIFI (80MHz 802.11ax SISO ANT H)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-5	5985	7	11.87
	6305	71	11.88
UNII-6	6465	103	12.14
UNII-7	6705	151	11.89
UNII-8	7025	215	11.51
6GHz WIFI (80MHz 802.11be SISO ANT H)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-5	5985	7	11.85
	6305	71	11.70
UNII-6	6465	103	12.00
UNII-7	6705	151	11.66
UNII-8	7025	215	11.58

Table 10-130
6 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn or Phablet), DSI = 1 (Head) – Ant E

6GHz WIFI (80MHz 802.11ax SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-5	5985	7	11.59
	6305	71	11.88
	6465	103	11.89
UNII-7	6705	151	11.84
UNII-8	7025	215	11.74
6GHz WIFI (80MHz 802.11be SISO ANT E)			
Band	**Freq. [MHz]**	**Channel**	**Avg. Conducted Power [dBm]**
UNII-5	5985	7	11.65
	6305	71	11.55
	6465	103	11.85
UNII-7	6705	151	11.72
UNII-8	7025	215	11.65

Table 10-131
6 GHz WLAN Measured P_{Limit} Average RF Power for DSI = 0 (Body-worn or Phablet), DSI = 1 (Head) – MIMO

6GHz WIFI (80MHz 802.11ax MIMO)					
Band	**Freq [MHz]**	**Channel**	**Avg. Conducted Powers [dBm]**		
			ANT1	**ANT2**	**MIMO**
UNII-5	5985	7	11.98	11.74	14.87
	6305	71	12.03	12.03	15.04
UNII-6	6465	103	12.26	11.94	15.11
UNII-7	6705	151	12.08	11.94	15.02
UNII-8	7025	215	11.70	11.86	14.79

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

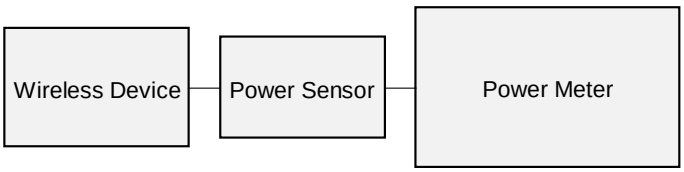


Figure 10-6
Power Measurement Setup

10.6 Bluetooth Conducted Powers

Table 10-132
Bluetooth Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant H

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	Avg Conducted Power	
					[dBm]	[mW]
2402	1.0	GFSK	ePA	0	15.45	35.075
2441	1.0	GFSK	ePA	39	16.63	46.004
2480	1.0	GFSK	ePA	78	16.01	39.902

Table 10-133
Bluetooth Measured P_{Limit} Average RF Power for DSI = 1 (Head) – Ant J

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	Avg Conducted Power	
					[dBm]	[mW]
2402	1.0	GFSK	ePA	0	16.75	47.304
2441	1.0	GFSK	ePA	39	16.57	45.342
2480	1.0	GFSK	ePA	78	16.13	40.992

Table 10-134
Bluetooth Measured P_{Limit} Average RF Power for DSI = 1 (Head) – MIMO

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	ANT1 H Avg Conducted Power		ANT J Avg Conducted Power		Dual Avg Conducted Power	
					[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]
2402	1.0	GFSK	iPA	0	12.80	19.055	13.83	24.155	16.36	43.209
2441	1.0	GFSK	iPA	39	13.86	24.322	12.77	18.923	16.36	43.245
2480	1.0	GFSK	iPA	78	13.70	23.442	13.00	19.953	16.37	43.395

Table 10-135
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant H

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	Avg Conducted Power	
					[dBm]	[mW]
2402	1.0	GFSK	ePA	0	18.08	64.239
2441	1.0	GFSK	ePA	39	19.24	83.946
2480	1.0	GFSK	ePA	78	18.38	68.881

Table 10-136
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant J

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	Avg Conducted Power	
					[dBm]	[mW]
2402	1.0	GFSK	ePA	0	19.29	84.898
2441	1.0	GFSK	ePA	39	19.24	83.849
2480	1.0	GFSK	ePA	78	18.79	75.701

Table 10-137
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – MIMO

Frequency [MHz]	Data Rate [Mbps]	Mod.	Power Scheme	Channel No.	Ant H. Avg Cond. Power		Ant J. Avg Cond. Power		Dual Avg Cond. Power	
					[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]
2402	1.0	GFSK	iPA	0	13.21	20.946	14.37	27.328	16.84	48.273
2441	1.0	GFSK	iPA	39	14.24	26.540	13.32	21.493	16.82	48.033
2480	1.0	GFSK	iPA	78	13.81	24.016	13.07	20.286	16.46	44.302

Table 10-138
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant H

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	17.78	59.979
2440	1 Mbps	19	LE	19.16	82.414
2480	1 Mbps	39	LE	18.43	69.663

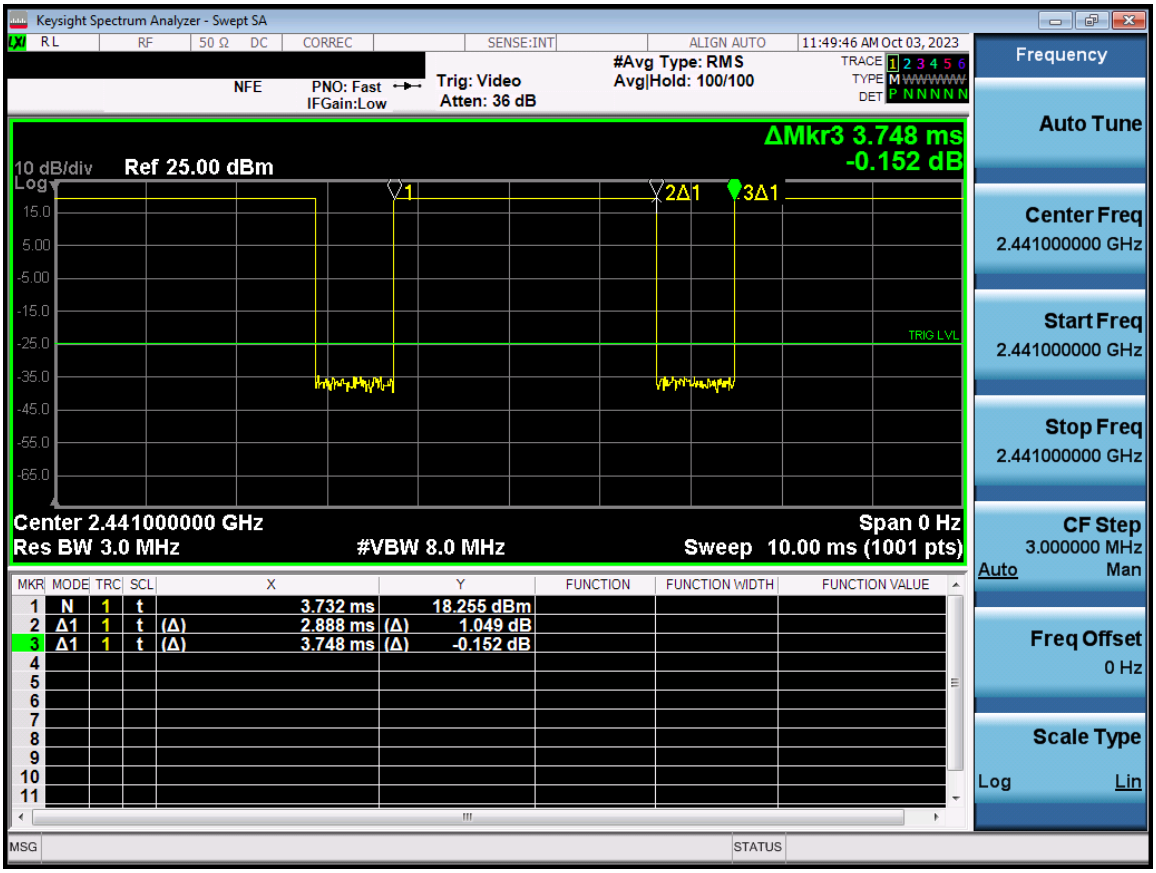
Table 10-139
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – Ant J

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Peak Conducted Power	
				[dBm]	[mW]
2402	1 Mbps	0	LE	19.11	81.452
2440	1 Mbps	19	LE	18.97	78.832
2480	1 Mbps	39	LE	18.35	68.328

Table 10-140
Measured P_{Max} Average RF Power for DSI = 0 (Body-worn, Hotspot or Phablet) – MIMO

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Bluetooth Mode	Ant H Peak Cond. Power		Ant J Peak Cond. Power		Dual Peak Cond. Power	
				[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]
2402	1 Mbps	0	LE	13.66	23.211	14.42	27.689	17.07	50.900
2440	1 Mbps	19	LE	13.48	22.274	13.71	23.496	16.61	45.770
2480	1 Mbps	39	LE	13.64	23.121	13.37	21.732	16.52	44.853

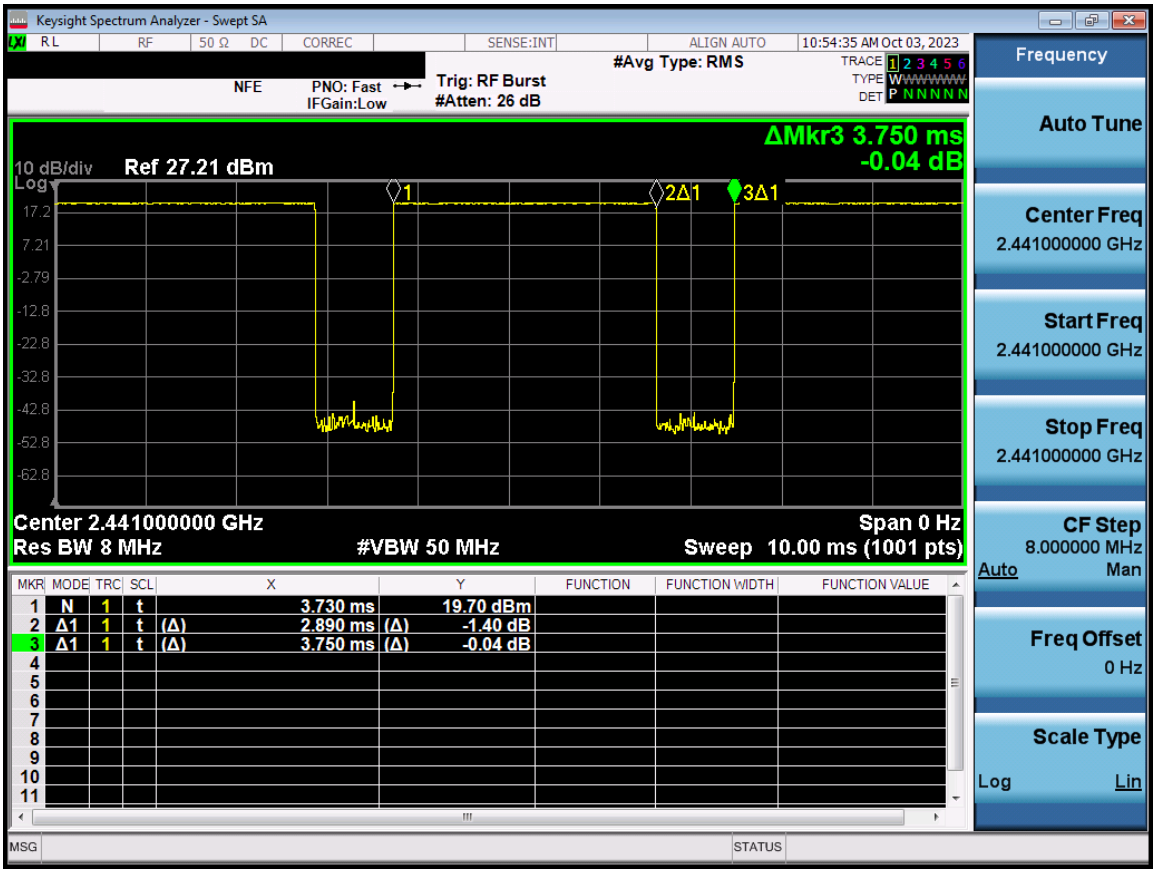
Figure 10-7
Bluetooth Antenna H Transmission Plot



Equation 10-1
Bluetooth Antenna H Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.888ms}{3.748ms} * 100\% = 77.05\%$$

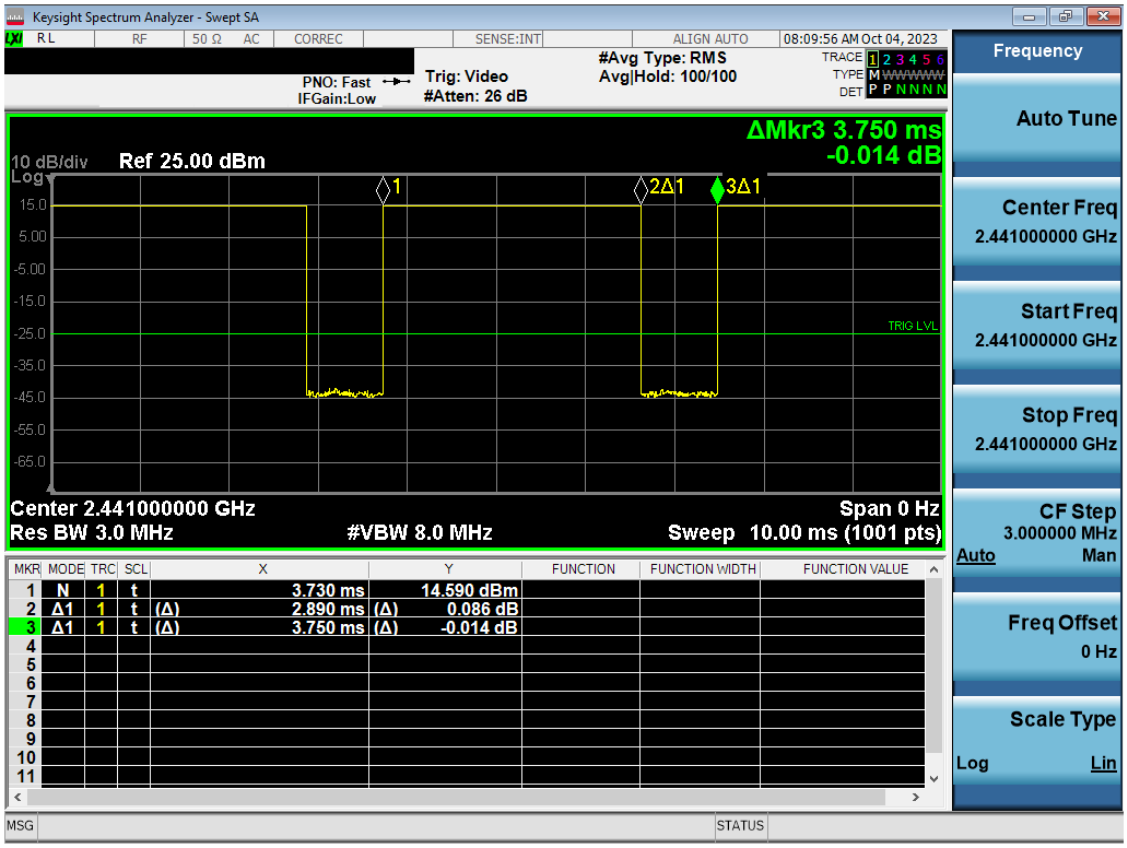
Figure 10-8
Bluetooth Antenna J Transmission Plot



Equation 10-2
Bluetooth Antenna J Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.890ms}{3.750ms} * 100\% = 77.07\%$$

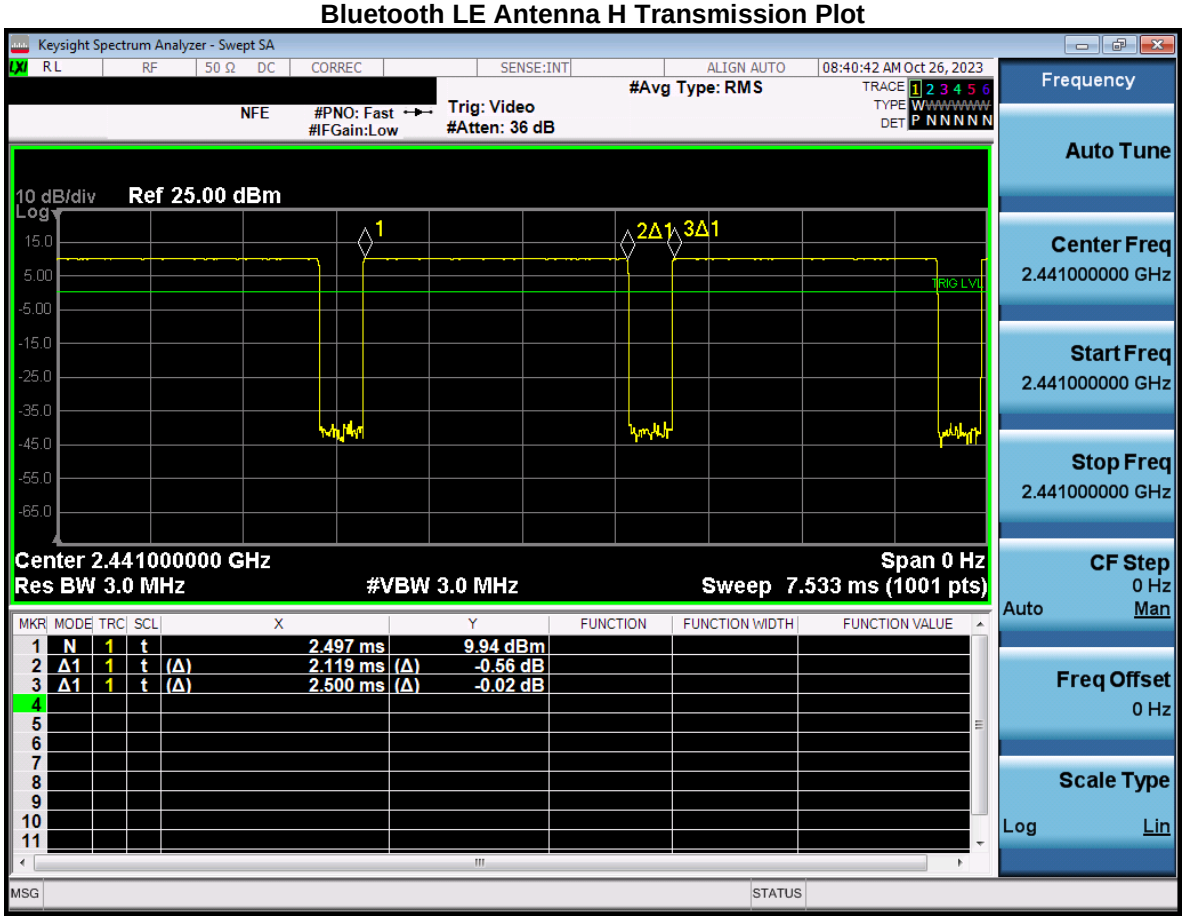
Figure 10-9
Bluetooth MIMO Transmission Plot



Equation 10-3
Bluetooth MIMO Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.890ms}{3.750ms} * 100\% = 77.07\%$$

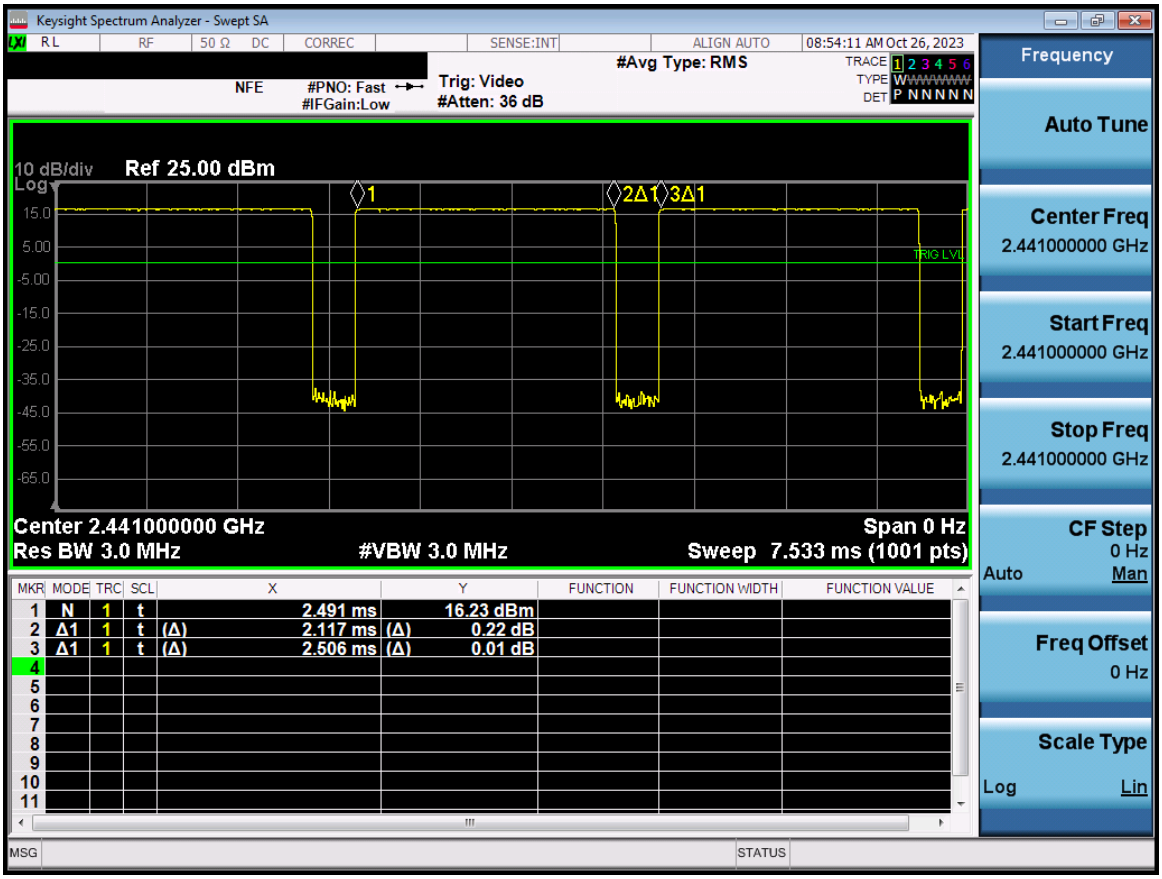
Figure 10-10
Bluetooth LE Antenna H Transmission Plot



Equation 10-4
Bluetooth LE Antenna H Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.119ms}{2.500ms} * 100\% = 84.76\%$$

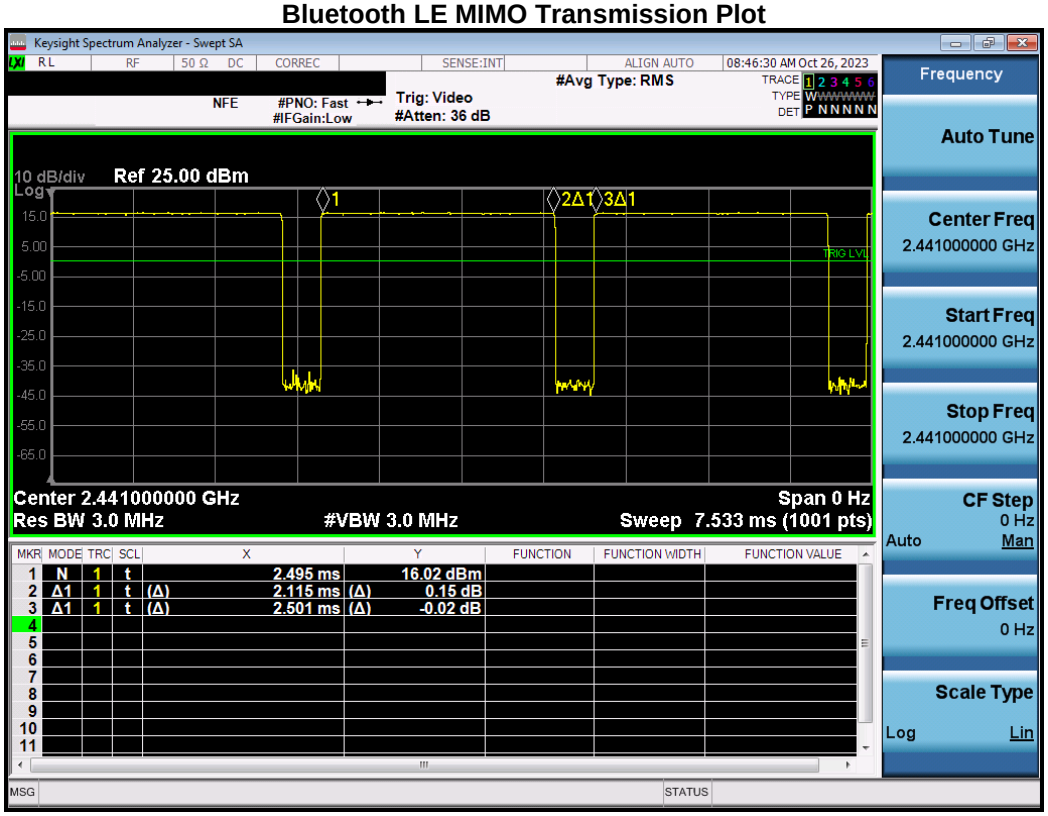
Figure 10-11
Bluetooth LE Antenna J Transmission Plot



Equation 10-5
Bluetooth LE Antenna J Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.117ms}{2.506ms} * 100\% = 84.48\%$$

Figure 10-12
Bluetooth LE MIMO Transmission Plot



Equation 10-6
Bluetooth LE MIMO Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.115ms}{2.501ms} * 100\% = 84.57\%$$

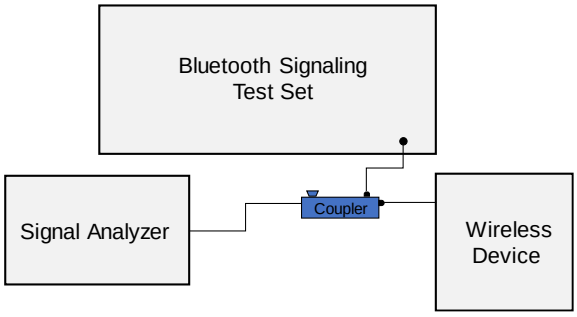


Figure 10-13
Power Measurement Setup

11 SYSTEM VERIFICATION

11.1 Tissue Verification

Table 11-1
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/14/2023	30 Head	23.0	12	0.725	52.988	0.750	55.000	-3.33%	-3.66%
			13	0.725	53.159	0.750	55.000	-3.33%	-3.35%
			14	0.726	53.302	0.750	55.000	-3.20%	-3.09%
09/18/2023	750 Head	22.9	680	0.870	43.294	0.888	42.305	-2.03%	2.34%
			695	0.875	43.246	0.889	42.227	-1.57%	2.41%
			700	0.877	43.230	0.889	42.201	-1.35%	2.44%
			710	0.880	43.202	0.890	42.149	-1.12%	2.50%
			725	0.886	43.165	0.891	42.071	-0.56%	2.60%
			750	0.895	43.095	0.894	41.942	0.11%	2.75%
			770	0.902	43.039	0.895	41.838	0.78%	2.87%
			785	0.907	42.991	0.896	41.760	1.23%	2.95%
			800	0.912	42.940	0.897	41.682	1.67%	3.02%
09/25/2023	750 Head	20.9	680	0.851	42.711	0.888	42.305	-4.17%	0.96%
			695	0.856	42.682	0.889	42.227	-3.71%	1.08%
			700	0.858	42.674	0.889	42.201	-3.49%	1.12%
			710	0.861	42.657	0.890	42.149	-3.26%	1.21%
			725	0.867	42.627	0.891	42.071	-2.69%	1.32%
			750	0.875	42.539	0.894	41.942	-2.13%	1.42%
			770	0.881	42.481	0.895	41.838	-1.56%	1.54%
			785	0.886	42.447	0.896	41.760	-1.12%	1.65%
			800	0.892	42.419	0.897	41.682	-0.56%	1.77%
10/09/2023	750 Head	23.0	680	0.853	42.769	0.888	42.305	-3.94%	1.10%
			695	0.858	42.728	0.889	42.227	-3.49%	1.19%
			700	0.859	42.715	0.889	42.201	-3.37%	1.22%
			710	0.862	42.688	0.890	42.149	-3.15%	1.28%
			725	0.867	42.643	0.891	42.071	-2.69%	1.36%
			750	0.874	42.567	0.894	41.942	-2.24%	1.49%
			770	0.881	42.507	0.895	41.838	-1.56%	1.60%
			785	0.885	42.465	0.896	41.760	-1.23%	1.69%
			800	0.890	42.420	0.897	41.682	-0.78%	1.77%
10/11/2023	750 Head	23.0	680	0.856	40.269	0.888	42.305	-3.60%	-4.81%
			695	0.861	40.232	0.889	42.227	-3.15%	-4.72%
			700	0.863	40.220	0.889	42.201	-2.92%	-4.69%
			710	0.867	40.196	0.890	42.149	-2.58%	-4.63%
			725	0.872	40.150	0.891	42.071	-2.13%	-4.57%
			750	0.878	40.045	0.894	41.942	-1.79%	-4.52%
			770	0.884	39.982	0.895	41.838	-1.23%	-4.44%
			785	0.889	39.939	0.896	41.760	-0.78%	-4.36%
			800	0.895	39.897	0.897	41.682	-0.22%	-4.28%
10/11/2023	750 Head	19.5	680	0.860	40.794	0.888	42.305	-3.15%	-3.57%
			695	0.866	40.754	0.889	42.227	-2.59%	-3.49%
			700	0.868	40.738	0.889	42.201	-2.36%	-3.47%
			710	0.872	40.703	0.890	42.149	-2.02%	-3.43%
			725	0.877	40.644	0.891	42.071	-1.57%	-3.39%
			750	0.886	40.560	0.894	41.942	-0.89%	-3.30%
			770	0.893	40.506	0.895	41.838	-0.22%	-3.18%
			785	0.899	40.464	0.896	41.760	0.33%	-3.10%
			800	0.905	40.411	0.897	41.682	0.89%	-3.05%
			815	0.910	40.344	0.898	41.594	1.34%	-3.01%
			820	0.912	40.325	0.899	41.578	1.45%	-3.01%
			835	0.917	40.276	0.900	41.500	1.89%	-2.95%
			850	0.923	40.238	0.916	41.500	0.76%	-3.04%
10/12/2023	750 Head	19.8	680	0.881	41.382	0.888	42.305	-0.79%	-2.18%
			695	0.886	41.340	0.889	42.227	-0.34%	-2.10%
			700	0.888	41.329	0.889	42.201	-0.11%	-2.07%
			710	0.892	41.313	0.890	42.149	0.22%	-1.98%
			725	0.898	41.276	0.891	42.071	0.79%	-1.89%
			750	0.906	41.173	0.894	41.942	1.34%	-1.83%
			770	0.911	41.122	0.895	41.838	1.79%	-1.71%
			785	0.916	41.087	0.896	41.760	2.23%	-1.61%
			800	0.922	41.062	0.897	41.682	2.79%	-1.49%
10/16/2023	750 Head	21.3	680	0.898	40.698	0.888	42.305	1.13%	-3.80%
			695	0.903	40.668	0.889	42.227	1.57%	-3.69%
			700	0.905	40.657	0.889	42.201	1.80%	-3.66%
			710	0.908	40.631	0.890	42.149	2.02%	-3.60%
			725	0.912	40.577	0.891	42.071	2.36%	-3.55%
			750	0.921	40.475	0.894	41.942	3.02%	-3.50%
			770	0.930	40.437	0.895	41.838	3.91%	-3.35%
			785	0.936	40.413	0.896	41.760	4.46%	-3.23%
			800	0.941	40.373	0.897	41.682	4.91%	-3.14%
10/18/2023	750 Head	22.2	680	0.873	43.614	0.888	42.305	-1.69%	3.09%
			695	0.878	43.574	0.889	42.227	-1.24%	3.19%
			700	0.880	43.562	0.889	42.201	-1.01%	3.23%
			710	0.883	43.535	0.890	42.149	-0.79%	3.29%
			725	0.888	43.484	0.891	42.071	-0.34%	3.36%
			750	0.897	43.393	0.894	41.942	0.34%	3.46%
			770	0.903	43.335	0.895	41.838	0.89%	3.58%
			785	0.909	43.301	0.896	41.760	1.45%	3.69%
			800	0.914	43.270	0.897	41.682	1.90%	3.81%
10/27/2023	750 Head	22.1	680	0.897	42.371	0.888	42.305	1.01%	0.16%
			695	0.902	42.332	0.889	42.227	1.46%	0.25%
			700	0.904	42.323	0.889	42.201	1.69%	0.29%
			710	0.908	42.314	0.890	42.149	2.02%	0.39%
			725	0.914	42.289	0.891	42.071	2.58%	0.52%
			750	0.923	42.187	0.894	41.942	3.24%	0.58%
			770	0.929	42.128	0.895	41.838	3.80%	0.69%
			785	0.934	42.088	0.896	41.760	4.24%	0.79%
			800	0.940	42.054	0.897	41.682	4.79%	0.89%

element

Table 11-2
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
09/14/2023	835 Head	24.2	815	0.871	40.768	0.898	41.594	-3.01%	-1.99%
			820	0.872	40.753	0.899	41.578	-3.00%	-1.98%
			835	0.876	40.711	0.900	41.500	-2.67%	-1.90%
			850	0.880	40.675	0.916	41.500	-3.93%	-1.99%
09/25/2023	835 Head	22.3	815	0.855	40.273	0.898	41.594	-4.79%	-3.18%
			820	0.860	40.203	0.899	41.578	-4.34%	-3.31%
			835	0.874	39.994	0.900	41.500	-2.89%	-3.63%
			850	0.888	39.803	0.916	41.500	-3.06%	-4.09%
10/06/2023	835 Head	19.8	815	0.870	40.803	0.898	41.594	-3.12%	-1.90%
			820	0.875	40.718	0.899	41.578	-2.67%	-2.07%
			835	0.890	40.498	0.900	41.500	-1.11%	-2.41%
			850	0.906	40.335	0.916	41.500	-1.09%	-2.81%
10/09/2023	835 Head	20.8	815	0.863	40.313	0.898	41.594	-3.90%	-3.08%
			820	0.868	40.245	0.899	41.578	-3.45%	-3.21%
			835	0.882	40.051	0.900	41.500	-2.00%	-3.49%
			850	0.898	39.869	0.916	41.500	-1.97%	-3.93%
10/12/2023	835 Head	20.8	815	0.854	39.940	0.898	41.594	-4.90%	-3.98%
			820	0.858	39.868	0.899	41.578	-4.56%	-4.11%
			835	0.873	39.661	0.900	41.500	-3.00%	-4.43%
			850	0.887	39.479	0.916	41.500	-3.17%	-4.87%
10/18/2023	835 Head	23.0	815	0.878	43.319	0.898	41.594	-2.23%	4.15%
			820	0.883	43.258	0.899	41.578	-1.78%	4.04%
			835	0.899	43.061	0.900	41.500	-0.11%	3.76%
			850	0.913	42.871	0.916	41.500	-0.33%	3.30%
10/24/2023	835 Head	20.5	815	0.904	42.541	0.898	41.594	0.67%	2.28%
			820	0.906	42.528	0.899	41.578	0.78%	2.28%
			835	0.912	42.487	0.900	41.500	1.33%	2.38%
			850	0.917	42.454	0.916	41.500	0.11%	2.30%
09/20/2023	1750 Head	22.3	1710	1.375	40.618	1.348	40.142	2.00%	1.19%
			1720	1.381	40.597	1.354	40.126	1.99%	1.17%
			1745	1.397	40.555	1.368	40.087	2.12%	1.17%
			1750	1.401	40.547	1.371	40.079	2.19%	1.17%
			1770	1.413	40.518	1.383	40.047	2.17%	1.18%
			1790	1.426	40.481	1.394	40.016	2.30%	1.16%
09/27/2023	1750 Head	24.5	1710	1.317	39.871	1.348	40.142	-2.30%	-0.68%
			1720	1.326	39.828	1.354	40.126	-2.07%	-0.74%
			1745	1.352	39.718	1.368	40.087	-1.17%	-0.92%
			1750	1.357	39.696	1.371	40.079	-1.02%	-0.96%
			1770	1.378	39.612	1.383	40.047	-0.36%	-1.09%
			1790	1.398	39.532	1.394	40.016	0.29%	-1.21%
10/02/2023	1750 Head	21.5	1710	1.375	39.006	1.348	40.142	2.00%	-2.83%
			1720	1.384	38.965	1.354	40.126	2.22%	-2.89%
			1745	1.406	38.850	1.368	40.087	2.78%	-3.09%
			1750	1.410	38.828	1.371	40.079	2.84%	-3.12%
			1770	1.429	38.746	1.383	40.047	3.33%	-3.25%
			1790	1.447	38.672	1.394	40.016	3.80%	-3.36%
10/02/2023	1750 Head	20.6	1710	1.290	39.274	1.348	40.142	-4.30%	-2.16%
			1720	1.296	39.257	1.354	40.126	-4.28%	-2.17%
			1745	1.312	39.225	1.368	40.087	-4.09%	-2.15%
			1750	1.315	39.219	1.371	40.079	-4.08%	-2.15%
			1770	1.327	39.201	1.383	40.047	-4.05%	-2.11%
			1790	1.338	39.173	1.394	40.016	-4.02%	-2.11%
10/06/2023	1750 Head	21.5	1710	1.298	41.439	1.348	40.142	-3.71%	3.23%
			1720	1.302	41.422	1.354	40.126	-3.84%	3.23%
			1745	1.317	41.334	1.368	40.087	-3.73%	3.11%
			1750	1.321	41.313	1.371	40.079	-3.65%	3.08%
			1770	1.336	41.258	1.383	40.047	-3.40%	3.02%
			1790	1.349	41.256	1.394	40.016	-3.23%	3.10%
10/11/2023	1750 Head	20.4	1710	1.327	39.675	1.348	40.142	-1.56%	-1.16%
			1720	1.334	39.658	1.354	40.126	-1.48%	-1.17%
			1745	1.347	39.625	1.368	40.087	-1.54%	-1.15%
			1750	1.350	39.619	1.371	40.079	-1.53%	-1.15%
			1770	1.358	39.592	1.383	40.047	-1.81%	-1.14%
			1790	1.369	39.555	1.394	40.016	-1.79%	-1.15%
10/12/2023	1750 Head	21.0	1710	1.335	42.093	1.348	40.142	-0.96%	4.86%
			1720	1.340	42.076	1.354	40.126	-1.03%	4.86%
			1745	1.354	42.026	1.368	40.087	-1.02%	4.84%
			1750	1.358	42.013	1.371	40.079	-0.95%	4.83%
			1770	1.372	41.968	1.383	40.047	-0.80%	4.80%
			1790	1.386	41.939	1.394	40.016	-0.57%	4.81%

Table 11-3
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
09/18/2023	1900 Head	23.0	1850	1.400	39.951	1.400	40.000	0.00%	-0.12%
			1860	1.409	39.917	1.400	40.000	0.64%	-0.21%
			1880	1.428	39.860	1.400	40.000	2.00%	-0.35%
			1900	1.445	39.792	1.400	40.000	3.21%	-0.52%
			1905	1.450	39.772	1.400	40.000	3.57%	-0.57%
			1910	1.454	39.753	1.400	40.000	3.86%	-0.62%
			1920	1.464	39.714	1.400	40.000	4.57%	-0.72%
09/20/2023	1900 Head	20.4	1850	1.401	41.645	1.400	40.000	0.07%	4.11%
			1860	1.412	41.607	1.400	40.000	0.86%	4.02%
			1880	1.433	41.533	1.400	40.000	2.36%	3.83%
			1900	1.454	41.464	1.400	40.000	3.86%	3.66%
			1905	1.459	41.446	1.400	40.000	4.21%	3.61%
			1910	1.465	41.429	1.400	40.000	4.64%	3.57%
09/25/2023	1900 Head	22.7	1850	1.389	39.081	1.400	40.000	-0.79%	-2.30%
			1860	1.397	39.038	1.400	40.000	-0.21%	-2.41%
			1880	1.415	38.946	1.400	40.000	1.07%	-2.64%
			1900	1.435	38.852	1.400	40.000	2.50%	-2.87%
			1905	1.440	38.830	1.400	40.000	2.86%	-2.93%
			1910	1.445	38.809	1.400	40.000	3.21%	-2.98%
			1920	1.455	38.771	1.400	40.000	3.93%	-3.07%
09/25/2023	1900 Head	20.4	1850	1.395	41.117	1.400	40.000	-0.36%	2.79%
			1860	1.406	41.074	1.400	40.000	0.43%	2.69%
			1880	1.427	40.987	1.400	40.000	1.93%	2.47%
			1900	1.450	40.909	1.400	40.000	3.57%	2.27%
			1905	1.456	40.891	1.400	40.000	4.00%	2.23%
			1910	1.461	40.873	1.400	40.000	4.36%	2.18%
09/27/2023	1900 Head	19.6	1850	1.383	41.377	1.400	40.000	-1.21%	3.44%
			1860	1.393	41.328	1.400	40.000	-0.50%	3.32%
			1880	1.415	41.237	1.400	40.000	1.07%	3.09%
			1900	1.438	41.160	1.400	40.000	2.71%	2.90%
			1905	1.443	41.143	1.400	40.000	3.07%	2.86%
			1910	1.448	41.125	1.400	40.000	3.43%	2.81%
10/04/2023	1900 Head	20.2	1850	1.391	40.547	1.400	40.000	-0.64%	1.37%
			1860	1.401	40.502	1.400	40.000	0.07%	1.26%
			1880	1.423	40.413	1.400	40.000	1.64%	1.03%
			1900	1.444	40.331	1.400	40.000	3.14%	0.83%
			1905	1.450	40.311	1.400	40.000	3.57%	0.78%
			1910	1.455	40.292	1.400	40.000	3.93%	0.73%
			1920	1.464	40.252	1.400	40.000	4.57%	0.63%
10/05/2023	1900 Head	22.6	1850	1.392	38.861	1.400	40.000	-0.57%	-2.85%
			1860	1.400	38.823	1.400	40.000	0.00%	-2.94%
			1880	1.419	38.746	1.400	40.000	1.36%	-3.13%
			1900	1.438	38.674	1.400	40.000	2.71%	-3.32%
			1905	1.443	38.654	1.400	40.000	3.07%	-3.36%
			1910	1.448	38.634	1.400	40.000	3.43%	-3.42%
			1920	1.456	38.592	1.400	40.000	4.00%	-3.52%
10/09/2023	1900 Head	20.3	1850	1.381	39.511	1.400	40.000	-1.36%	-1.22%
			1860	1.392	39.471	1.400	40.000	-0.57%	-1.32%
			1880	1.414	39.403	1.400	40.000	1.00%	-1.49%
			1900	1.434	39.341	1.400	40.000	2.43%	-1.65%
			1905	1.438	39.323	1.400	40.000	2.71%	-1.69%
			1910	1.443	39.303	1.400	40.000	3.07%	-1.74%
			1920	1.452	39.258	1.400	40.000	3.71%	-1.85%
10/16/2023	1900 Head	20.1	1850	1.370	38.802	1.400	40.000	-2.14%	-3.00%
			1860	1.378	38.772	1.400	40.000	-1.57%	-3.07%
			1880	1.395	38.736	1.400	40.000	-0.36%	-3.16%
			1900	1.414	38.694	1.400	40.000	1.00%	-3.26%
			1905	1.418	38.680	1.400	40.000	1.29%	-3.30%
			1910	1.423	38.662	1.400	40.000	1.64%	-3.35%
			1920	1.432	38.627	1.400	40.000	2.29%	-3.43%
09/18/2023	2450 Head	19.8	2300	1.743	39.363	1.670	39.500	4.37%	-0.35%
			2310	1.750	39.348	1.679	39.480	4.23%	-0.33%
			2320	1.758	39.330	1.687	39.460	4.21%	-0.33%
			2400	1.818	39.207	1.756	39.289	3.53%	-0.21%
			2450	1.858	39.117	1.800	39.200	3.22%	-0.21%
			2480	1.880	39.085	1.833	39.162	2.56%	-0.20%
			2500	1.895	39.052	1.855	39.136	2.16%	-0.21%
			2510	1.903	39.031	1.866	39.123	1.98%	-0.24%
			2535	1.926	38.976	1.893	39.092	1.74%	-0.30%
			2550	1.939	38.949	1.909	39.073	1.57%	-0.32%
			2560	1.947	38.934	1.920	39.060	1.41%	-0.32%
			2600	1.978	38.875	1.964	39.009	0.71%	-0.34%
			2650	2.020	38.775	2.018	38.945	0.10%	-0.44%
			2680	2.045	38.716	2.051	38.907	-0.29%	-0.49%
			2700	2.061	38.682	2.073	38.882	-0.58%	-0.51%
09/25/2023	2450 Head	22.5	2300	1.650	39.629	1.670	39.500	-1.20%	0.33%
			2310	1.661	39.601	1.679	39.480	-1.07%	0.31%
			2320	1.673	39.574	1.687	39.460	-0.83%	0.29%
			2400	1.754	39.307	1.756	39.289	-0.11%	0.05%
			2450	1.811	39.176	1.800	39.200	0.61%	-0.06%
			2480	1.839	39.075	1.833	39.162	0.33%	-0.22%
			2500	1.859	38.990	1.855	39.136	0.22%	-0.37%
			2510	1.871	38.952	1.866	39.123	0.27%	-0.44%
			2535	1.903	38.884	1.893	39.092	0.53%	-0.53%
			2550	1.921	38.847	1.909	39.073	0.63%	-0.58%
			2560	1.932	38.821	1.920	39.060	0.63%	-0.61%
			2600	1.970	38.664	1.964	39.009	0.31%	-0.88%
			2650	2.031	38.488	2.018	38.945	0.64%	-1.17%
			2680	2.063	38.398	2.051	38.907	0.59%	-1.31%
			2700	2.081	38.307	2.073	38.882	0.39%	-1.48%
09/27/2023	2450 Head	20.2	2300	1.651	38.860	1.670	39.500	-1.14%	-1.62%
			2310	1.661	38.824	1.679	39.480	-1.07%	-1.66%
			2320	1.671	38.786	1.687	39.460	-0.95%	-1.71%
			2400	1.755	38.482	1.756	39.289	-0.06%	-2.05%
			2450	1.809	38.284	1.800	39.200	0.50%	-2.34%
			2480	1.839	38.175	1.833	39.162	0.33%	-2.52%
			2500	1.861	38.092	1.855	39.136	0.32%	-2.67%
			2510	1.872	38.051	1.866	39.123	0.32%	-2.74%
			2535	1.900	37.949	1.893	39.092	0.37%	-2.92%
			2550	1.916	37.895	1.909	39.073	0.37%	-3.01%
			2560	1.927	37.861	1.920	39.060	0.36%	-3.07%
			2600	1.970	37.708	1.964	39.009	0.31%	-3.34%
			2650	2.025	37.511	2.018	38.945	0.35%	-3.68%
			2680	2.056	37.400	2.051	38.907	0.24%	-3.87%
			2700	2.077	37.320	2.073	38.882	0.19%	-4.02%

Table 11-4
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/02/2023	2450 Head	21.5	2300	1.712	39.660	1.670	39.500	2.51%	0.41%
			2310	1.724	39.626	1.679	39.480	2.68%	0.37%
			2320	1.738	39.589	1.687	39.460	3.02%	0.33%
			2400	1.827	39.327	1.756	39.289	4.04%	0.10%
			2450	1.888	39.135	1.800	39.200	4.89%	-0.17%
			2480	1.919	39.034	1.833	39.162	4.69%	-0.33%
			2500	1.939	38.943	1.855	39.136	4.53%	-0.49%
			2510	1.950	38.897	1.866	39.123	4.50%	-0.58%
			2535	1.981	38.801	1.893	39.092	4.65%	-0.74%
			2550	2.000	38.754	1.909	39.073	4.77%	-0.82%
			2560	2.011	38.725	1.920	39.060	4.74%	-0.86%
			2600	2.048	38.582	1.964	39.009	4.28%	-1.09%
			2650	2.108	38.375	2.018	38.945	4.46%	-1.46%
			2680	2.142	38.303	2.051	38.907	4.44%	-1.55%
			2700	2.159	38.222	2.073	38.882	4.15%	-1.70%
10/02/2023	2450 Head	21.5	2300	1.721	38.217	1.670	39.500	3.05%	-3.25%
			2310	1.729	38.203	1.679	39.480	2.98%	-3.23%
			2320	1.737	38.189	1.687	39.460	2.96%	-3.22%
			2400	1.797	38.068	1.756	39.289	2.33%	-3.11%
			2450	1.837	37.985	1.800	39.200	2.06%	-3.10%
			2480	1.859	37.937	1.833	39.162	1.42%	-3.13%
			2500	1.875	37.900	1.855	39.136	1.08%	-3.16%
			2510	1.884	37.883	1.866	39.123	0.96%	-3.17%
			2535	1.905	37.838	1.893	39.092	0.63%	-3.21%
			2550	1.918	37.816	1.909	39.073	0.47%	-3.22%
			2560	1.925	37.802	1.920	39.060	0.26%	-3.22%
			2600	1.956	37.721	1.964	39.009	-0.41%	-3.30%
			2650	1.999	37.622	2.018	38.945	-0.94%	-3.40%
			2680	2.023	37.586	2.051	38.907	-1.37%	-3.40%
			2700	2.037	37.549	2.073	38.882	-1.74%	-3.43%
10/03/2023	2450 Head	23.7	2300	1.746	39.461	1.670	39.500	4.55%	-0.10%
			2310	1.754	39.450	1.679	39.480	4.47%	-0.08%
			2320	1.761	39.437	1.687	39.460	4.39%	-0.06%
			2400	1.819	39.271	1.756	39.289	3.59%	-0.05%
			2450	1.857	39.186	1.800	39.200	3.17%	-0.04%
			2480	1.877	39.109	1.833	39.162	2.40%	-0.14%
			2500	1.893	39.066	1.855	39.136	2.05%	-0.18%
			2510	1.901	39.051	1.866	39.123	1.88%	-0.18%
			2535	1.922	39.012	1.893	39.092	1.53%	-0.20%
			2550	1.933	38.982	1.909	39.073	1.26%	-0.23%
			2560	1.941	38.960	1.920	39.060	1.09%	-0.26%
			2600	1.968	38.882	1.964	39.009	0.20%	-0.33%
			2650	2.008	38.779	2.018	38.945	-0.50%	-0.43%
			2680	2.031	38.724	2.051	38.907	-0.98%	-0.47%
			2700	2.045	38.691	2.073	38.882	-1.35%	-0.49%
10/03/2023	2450 Head	21.5	2300	1.737	39.099	1.670	39.500	4.01%	-1.02%
			2310	1.744	39.086	1.679	39.480	3.87%	-1.00%
			2320	1.752	39.072	1.687	39.460	3.85%	-0.98%
			2400	1.813	38.926	1.756	39.289	3.25%	-0.92%
			2450	1.852	38.831	1.800	39.200	2.89%	-0.94%
			2480	1.875	38.768	1.833	39.162	2.29%	-1.01%
			2500	1.890	38.734	1.855	39.136	1.89%	-1.03%
			2510	1.898	38.720	1.866	39.123	1.71%	-1.03%
			2535	1.918	38.676	1.893	39.092	1.32%	-1.06%
			2550	1.930	38.642	1.909	39.073	1.10%	-1.10%
			2560	1.938	38.620	1.920	39.060	0.94%	-1.13%
			2600	1.969	38.535	1.964	39.009	0.25%	-1.16%
			2650	2.007	38.447	2.018	38.945	-0.55%	-1.28%
			2680	2.033	38.399	2.051	38.907	-0.88%	-1.31%
			2700	2.048	38.379	2.073	38.882	-1.21%	-1.29%
10/09/2023	2450 Head	22.3	2300	1.670	38.347	1.670	39.500	0.00%	-2.92%
			2310	1.683	38.318	1.679	39.480	0.24%	-2.94%
			2320	1.694	38.296	1.687	39.460	0.41%	-2.95%
			2400	1.771	38.021	1.756	39.289	0.85%	-3.23%
			2450	1.830	37.866	1.800	39.200	1.67%	-3.40%
			2480	1.854	37.759	1.833	39.162	1.15%	-3.58%
			2500	1.874	37.667	1.855	39.136	1.02%	-3.75%
			2510	1.886	37.621	1.866	39.123	1.07%	-3.84%
			2535	1.918	37.518	1.893	39.092	1.32%	-4.03%
			2550	1.936	37.472	1.909	39.073	1.41%	-4.10%
			2560	1.947	37.445	1.920	39.060	1.41%	-4.13%
			2600	1.982	37.319	1.964	39.009	0.92%	-4.33%
			2650	2.038	37.106	2.018	38.945	0.99%	-4.72%
			2680	2.073	37.017	2.051	38.907	1.07%	-4.86%
			2700	2.091	36.963	2.073	38.882	0.87%	-4.94%
10/09/2023	2450 Head	24.4	2300	1.698	39.487	1.670	39.500	1.68%	-0.03%
			2310	1.710	39.447	1.679	39.480	1.85%	-0.08%
			2320	1.723	39.413	1.687	39.460	2.13%	-0.12%
			2400	1.816	39.096	1.756	39.289	3.42%	-0.49%
			2450	1.875	38.912	1.800	39.200	4.17%	-0.73%
			2480	1.911	38.772	1.833	39.162	4.26%	-1.00%
			2500	1.934	38.681	1.855	39.136	4.26%	-1.16%
			2510	1.946	38.642	1.866	39.123	4.29%	-1.23%
			2535	1.974	38.556	1.893	39.092	4.28%	-1.37%
			2550	1.991	38.500	1.909	39.073	4.30%	-1.47%
			2560	2.002	38.456	1.920	39.060	4.27%	-1.55%
			2600	2.051	38.259	1.964	39.009	4.43%	-1.92%
			2650	2.109	38.072	2.018	38.945	4.51%	-2.24%
			2680	2.144	37.936	2.051	38.907	4.53%	-2.50%
			2700	2.168	37.850	2.073	38.882	4.58%	-2.65%
10/09/2023	2450 Head	20.5	2300	1.708	38.873	1.670	39.500	2.28%	-1.59%
			2310	1.715	38.860	1.679	39.480	2.14%	-1.57%
			2320	1.723	38.844	1.687	39.460	2.13%	-1.56%
			2400	1.786	38.735	1.756	39.289	1.71%	-1.41%
			2450	1.825	38.649	1.800	39.200	1.39%	-1.41%
			2480	1.852	38.593	1.833	39.162	1.04%	-1.45%
			2500	1.869	38.564	1.855	39.136	0.75%	-1.46%
			2510	1.877	38.551	1.866	39.123	0.59%	-1.46%
			2535	1.895	38.509	1.893	39.092	0.11%	-1.49%
			2550	1.907	38.480	1.909	39.073	-0.10%	-1.52%
			2560	1.915	38.457	1.920	39.060	-0.26%	-1.54%
			2600	1.951	38.383	1.964	39.009	-0.66%	-1.60%
			2650	1.989	38.293	2.018	38.945	-1.44%	-1.67%
			2680	2.014	38.237	2.051	38.907	-1.80%	-1.72%
			2700	2.031	38.205	2.073	38.882	-2.03%	-1.74%
10/11/2023	2450 Head	24.4	2300	1.709	39.534	1.670	39.500	2.34%	0.09%
			2310	1.720	39.493	1.679	39.480	2.44%	0.03%
			2320	1.731	39.451	1.687	39.460	2.61%	-0.02%
			2400	1.826	39.129	1.756	39.289	3.99%	-0.41%
			2450	1.883	38.898	1.800	39.200	4.61%	-0.77%
			2480	1.919	38.782	1.833	39.162	4.69%	-0.97%
			2500	1.941	38.707	1.855	39.136	4.64%	-1.10%
			2510	1.952	38.667	1.866	39.123	4.61%	-1.17%
			2535	1.981	38.552	1.893	39.092	4.65%	-1.38%
			2550	1.999	38.482	1.909	39.073	4.71%	-1.51%
			2560	2.012	38.440	1.920	39.060	4.79%	-1.59%
			2600	2.058	38.292	1.964	39.009	4.79%	-1.84%
			2650	2.116	38.079	2.018	38.945	4.86%	-2.22%
			2680	2.152	37.953	2.051	38.907	4.92%	-2.45%
			2700	2.176	37.875	2.073	38.882	4.97%	-2.59%
10/18/2023	2450 Head	24.4	2300	1.673	38.581	1.670	39.500	0.18%	-2.33%
			2310	1.685	38.553	1.679	39.480	0.36%	-2.35%
			2320	1.695	38.521	1.687	39.460	0.47%	-2.38%
			2400	1.782	38.175	1.756	39.289	1.48%	-2.84%
			2450	1.836	37.988	1.800	39.200	2.00%	-3.09%
			2480	1.867	37.854	1.833	39.162	1.85%	-3.34%
			2500	1.891	37.781	1.855	39.136	1.94%	-3.46%
			2510	1.903	37.748	1.866	39.123	1.98%	-3.51%
			2535	1.933	37.659	1.893	39.092	2.11%	-3.67%
			2550	1.949	37.597	1.909	39.073	2.10%	-3.78%
			2560	1.959	37.554	1.920	39.060	2.03%	-3.86%
			2600	2.003	37.390	1.964	39.009	1.99%	-4.15%
			2650	2.063	37.216	2.018	38.945	2.23%	-4.44%
			2680	2.094	37.088	2.051	38.907	2.10%	-4.68%
			2700	2.117	36.994	2.073	38.882	2.12%	-4.86%
10/31/2023	2450 Head	23.0	2300	1.724	39.420	1.670	39.500	3.23%	-0.20%
			2310	1.731	39.401	1.679	39.480	3.10%	-0.20%
			2320	1.739	39.378	1.687	39.460	3.08%	-0.21%
			2400	1.794	39.275	1.756	39.289	2.16%	-0.04%
			2450	1.833	39.175	1.800	39.200	1.83%	-0.06%
			2480	1.857	39.130	1.833	39.162	1.31%	-0.08%
			2500	1.869	39.118	1.855	39.136	0.75%	-0.05%
			2510	1.875	39.109	1.866	39.123	0.48%	-0.04%
			2535	1.893	39.069	1.893	39.092	0.00%	-0.06%
			2550	1.906	39.034	1.909	39.073	-0.16%	-0.10%
			2560	1.916	39.010	1.920	39.060	-0.21%	-0.13%
			2600	1.948	38.958	1.964	39.009	-0.81%	-0.13%
			2650	1.983	38.888	2.018	38.945	-1.73%	-0.15%
			2680	2.010	38.823	2.051	38.907	-2.00%	-0.22%
			2700	2.026	38.797	2.073	38.882	-2.27%	-0.22%

Table 11-5
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
09/27/2023	3600 Head	21.1	3300	2.739	36.584	2.708	38.157	1.14%	-4.12%
			3350	2.775	36.522	2.759	38.100	0.58%	-4.14%
			3450	2.850	36.380	2.861	37.986	-0.38%	-4.23%
			3500	2.888	36.289	2.913	37.929	-0.86%	-4.32%
			3550	2.926	36.246	2.964	37.871	-1.28%	-4.29%
			3560	2.934	36.239	2.974	37.860	-1.34%	-4.28%
			3600	2.969	36.159	3.015	37.814	-1.53%	-4.38%
			3650	3.003	36.118	3.066	37.757	-2.05%	-4.34%
			3690	3.039	36.051	3.107	37.711	-2.19%	-4.40%
			3700	3.046	36.044	3.117	37.700	-2.28%	-4.39%
			3750	3.083	35.990	3.169	37.643	-2.71%	-4.39%
			3900	3.210	35.822	3.323	37.471	-3.40%	-4.40%
			3930	3.234	35.784	3.353	37.437	-3.55%	-4.42%
			4100	3.385	35.573	3.528	37.243	-4.05%	-4.48%
			4150	3.423	35.498	3.579	37.186	-4.36%	-4.54%
10/02/2023	3600 Head	20.4	3300	2.588	39.611	2.708	38.157	-4.43%	3.81%
			3350	2.634	39.520	2.759	38.100	-4.53%	3.73%
			3450	2.726	39.359	2.861	37.986	-4.72%	3.61%
			3500	2.772	39.292	2.913	37.929	-4.84%	3.59%
			3550	2.823	39.221	2.964	37.871	-4.76%	3.56%
			3560	2.832	39.200	2.974	37.860	-4.77%	3.54%
			3600	2.871	39.140	3.015	37.814	-4.78%	3.51%
			3650	2.917	39.079	3.066	37.757	-4.86%	3.50%
			3690	2.954	39.013	3.107	37.711	-4.92%	3.45%
			3700	2.966	38.995	3.117	37.700	-4.84%	3.44%
			3750	3.012	38.944	3.169	37.643	-4.95%	3.46%
			3900	3.162	38.732	3.323	37.471	-4.85%	3.37%
			3930	3.195	38.687	3.353	37.437	-4.71%	3.34%
			4100	3.373	38.438	3.528	37.243	-4.39%	3.21%
			4150	3.425	38.351	3.579	37.186	-4.30%	3.13%
10/02/2023	3600 Head	20.9	3300	2.757	36.418	2.708	38.157	1.81%	-4.56%
			3350	2.797	36.340	2.759	38.100	1.38%	-4.62%
			3450	2.870	36.186	2.861	37.986	0.31%	-4.74%
			3500	2.907	36.146	2.913	37.929	-0.21%	-4.70%
			3550	2.946	36.069	2.964	37.871	-0.61%	-4.76%
			3560	2.954	36.050	2.974	37.860	-0.67%	-4.78%
			3600	2.988	36.006	3.015	37.814	-0.90%	-4.78%
			3650	3.023	35.943	3.066	37.757	-1.40%	-4.80%
			3690	3.055	35.881	3.107	37.711	-1.67%	-4.85%
			3700	3.065	35.867	3.117	37.700	-1.67%	-4.86%
			3750	3.102	35.837	3.169	37.643	-2.11%	-4.80%
			3900	3.225	35.644	3.323	37.471	-2.95%	-4.88%
			3930	3.253	35.611	3.353	37.437	-2.98%	-4.88%
			4100	3.400	35.420	3.528	37.243	-3.63%	-4.89%
			4150	3.442	35.344	3.579	37.186	-3.83%	-4.95%
10/23/2023	3600 Head	20.2	3300	2.638	39.007	2.708	38.157	-2.58%	2.23%
			3350	2.681	38.936	2.759	38.100	-2.83%	2.19%
			3450	2.774	38.740	2.861	37.986	-3.04%	1.98%
			3500	2.823	38.636	2.913	37.929	-3.09%	1.86%
			3550	2.868	38.559	2.964	37.871	-3.24%	1.82%
			3560	2.879	38.533	2.974	37.860	-3.19%	1.78%
			3600	2.922	38.463	3.015	37.814	-3.08%	1.72%
			3650	2.965	38.391	3.066	37.757	-3.29%	1.68%
			3690	3.006	38.323	3.107	37.711	-3.25%	1.62%
			3700	3.015	38.314	3.117	37.700	-3.27%	1.63%
			3750	3.063	38.224	3.169	37.643	-3.34%	1.54%
			3900	3.219	37.994	3.323	37.471	-3.13%	1.40%
			3930	3.251	37.929	3.353	37.437	-3.04%	1.31%
			4100	3.437	37.631	3.528	37.243	-2.58%	1.04%
			4150	3.487	37.525	3.579	37.186	-2.57%	0.91%
10/23/2023	3600 Head	21.0	3300	2.748	36.452	2.708	38.157	1.48%	-4.47%
			3350	2.783	36.375	2.759	38.100	0.87%	-4.53%
			3450	2.855	36.249	2.861	37.986	-0.21%	-4.57%
			3500	2.900	36.167	2.913	37.929	-0.45%	-4.65%
			3550	2.931	36.117	2.964	37.871	-1.11%	-4.63%
			3560	2.940	36.096	2.974	37.860	-1.14%	-4.66%
			3600	2.976	36.041	3.015	37.814	-1.29%	-4.69%
			3650	3.008	35.988	3.066	37.757	-1.89%	-4.69%
			3690	3.044	35.933	3.107	37.711	-2.03%	-4.71%
			3700	3.050	35.931	3.117	37.700	-2.15%	-4.69%
			3750	3.089	35.872	3.169	37.643	-2.52%	-4.70%
			3900	3.217	35.697	3.323	37.471	-3.19%	-4.73%
			3930	3.240	35.643	3.353	37.437	-3.37%	-4.79%
			4100	3.391	35.441	3.528	37.243	-3.88%	-4.84%
			4150	3.432	35.363	3.579	37.186	-4.11%	-4.90%
11/05/2023	3600 Head	19.3	3300	2.611	39.980	2.708	38.157	-3.58%	4.78%
			3350	2.653	39.887	2.759	38.100	-3.84%	4.69%
			3450	2.750	39.711	2.861	37.986	-3.88%	4.54%
			3500	2.797	39.592	2.913	37.929	-3.98%	4.38%
			3550	2.850	39.550	2.964	37.871	-3.85%	4.43%
			3560	2.859	39.530	2.974	37.860	-3.87%	4.41%
			3600	2.893	39.446	3.015	37.814	-4.05%	4.32%
			3650	2.946	39.373	3.066	37.757	-3.91%	4.28%
			3690	2.982	39.308	3.107	37.711	-4.02%	4.23%
			3700	2.988	39.282	3.117	37.700	-4.14%	4.20%
			3750	3.045	39.178	3.169	37.643	-3.91%	4.08%
			3900	3.204	38.980	3.323	37.471	-3.58%	4.03%
			3930	3.234	38.900	3.353	37.437	-3.55%	3.91%
			4100	3.421	38.608	3.528	37.243	-3.03%	3.67%
			4150	3.472	38.544	3.579	37.186	-2.99%	3.65%

Table 11-6
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/01/2023	5200-5800 Head	20.8	5180	4.511	35.286	4.635	36.009	-2.68%	-2.01%
			5190	4.526	35.283	4.645	35.998	-2.56%	-1.99%
			5200	4.538	35.272	4.655	35.986	-2.51%	-1.98%
			5210	4.547	35.256	4.666	35.975	-2.55%	-2.00%
			5220	4.554	35.239	4.676	35.963	-2.61%	-2.01%
			5240	4.570	35.209	4.696	35.940	-2.68%	-2.03%
			5250	4.580	35.179	4.706	35.929	-2.68%	-2.09%
			5260	4.588	35.145	4.717	35.917	-2.73%	-2.15%
			5270	4.599	35.109	4.727	35.906	-2.71%	-2.22%
			5280	4.614	35.085	4.737	35.894	-2.60%	-2.29%
			5290	4.629	35.072	4.748	35.883	-2.51%	-2.26%
			5300	4.642	35.062	4.758	35.871	-2.44%	-2.26%
			5310	4.651	35.046	4.768	35.860	-2.45%	-2.27%
			5320	4.662	35.029	4.778	35.849	-2.43%	-2.29%
			5500	4.859	34.745	4.963	35.643	-2.10%	-2.52%
			5510	4.867	34.728	4.973	35.632	-2.13%	-2.54%
			5520	4.874	34.703	4.983	35.620	-2.19%	-2.57%
			5530	4.883	34.669	4.994	35.609	-2.22%	-2.64%
			5540	4.896	34.636	5.004	35.597	-2.16%	-2.70%
			5550	4.914	34.604	5.014	35.586	-1.99%	-2.76%
			5560	4.932	34.585	5.024	35.574	-1.83%	-2.78%
			5580	4.969	34.574	5.045	35.551	-1.51%	-2.75%
			5600	4.985	34.557	5.065	35.529	-1.58%	-2.74%
			5610	4.990	34.537	5.076	35.518	-1.69%	-2.76%
			5620	4.997	34.516	5.086	35.506	-1.75%	-2.79%
			5640	5.013	34.466	5.106	35.483	-1.82%	-2.87%
			5660	5.045	34.408	5.127	35.460	-1.60%	-2.97%
			5670	5.065	34.389	5.137	35.449	-1.40%	-2.99%
			5680	5.083	34.377	5.147	35.437	-1.24%	-2.99%
			5690	5.098	34.374	5.158	35.426	-1.16%	-2.97%
			5700	5.109	34.367	5.168	35.414	-1.14%	-2.96%
			5710	5.117	34.364	5.178	35.403	-1.18%	-2.93%
			5720	5.126	34.350	5.188	35.391	-1.20%	-2.94%
			5745	5.147	34.301	5.214	35.363	-1.29%	-3.00%
			5750	5.150	34.289	5.219	35.357	-1.32%	-3.02%
			5755	5.155	34.276	5.224	35.351	-1.32%	-3.04%
			5765	5.165	34.254	5.234	35.340	-1.32%	-3.07%
			5775	5.180	34.224	5.245	35.329	-1.24%	-3.13%
			5785	5.198	34.197	5.255	35.317	-1.08%	-3.17%
			5795	5.214	34.180	5.265	35.305	-0.97%	-3.19%
			5800	5.220	34.175	5.270	35.300	-0.95%	-3.19%
			5800	5.220	34.175	5.270	35.300	-0.95%	-3.19%
			5805	5.224	34.171	5.275	35.294	-0.97%	-3.18%
			5825	5.246	34.152	5.296	35.271	-0.94%	-3.17%
			5835	5.260	34.132	5.305	35.230	-0.85%	-3.12%
			5845	5.270	34.122	5.315	35.210	-0.85%	-3.09%
			5855	5.277	34.108	5.325	35.197	-0.90%	-3.09%
			5865	5.283	34.087	5.336	35.190	-0.99%	-3.13%
			5865	5.283	34.087	5.336	35.190	-0.99%	-3.13%
			5865	5.283	34.087	5.336	35.190	-0.99%	-3.13%
			5865	5.283	34.087	5.336	35.190	-0.99%	-3.13%
			5875	5.292	34.053	5.347	35.183	-1.03%	-3.21%
			5885	5.305	34.019	5.357	35.177	-0.97%	-3.29%
			5905	5.334	33.972	5.379	35.163	-0.84%	-3.39%
10/15/2023	5200-5800 Head	20.6	5180	4.469	35.756	4.635	36.009	-3.58%	-0.70%
			5190	4.479	35.740	4.645	35.998	-3.57%	-0.72%
			5200	4.489	35.699	4.655	35.986	-3.57%	-0.80%
			5210	4.498	35.666	4.666	35.975	-3.60%	-0.86%
			5220	4.510	35.645	4.676	35.963	-3.55%	-0.88%
			5240	4.534	35.602	4.696	35.940	-3.45%	-0.94%
			5250	4.547	35.585	4.706	35.929	-3.38%	-0.96%
			5260	4.563	35.573	4.717	35.917	-3.26%	-0.96%
			5270	4.578	35.568	4.727	35.906	-3.15%	-0.94%
			5280	4.588	35.560	4.737	35.894	-3.15%	-0.93%
			5290	4.595	35.539	4.748	35.883	-3.22%	-0.96%
			5300	4.601	35.518	4.758	35.871	-3.30%	-0.98%
			5310	4.609	35.497	4.768	35.860	-3.33%	-1.01%
			5320	4.619	35.472	4.778	35.849	-3.33%	-1.05%
			5500	4.827	35.144	4.963	35.643	-2.74%	-1.40%
			5510	4.840	35.131	4.973	35.632	-2.67%	-1.41%
			5520	4.850	35.115	4.983	35.620	-2.67%	-1.42%
			5530	4.858	35.109	4.994	35.609	-2.72%	-1.40%
			5540	4.870	35.072	5.004	35.597	-2.68%	-1.47%
			5550	4.882	35.044	5.014	35.586	-2.63%	-1.52%
			5560	4.892	35.003	5.024	35.574	-2.63%	-1.61%
			5580	4.918	34.972	5.045	35.551	-2.52%	-1.63%
			5600	4.946	34.946	5.065	35.529	-2.35%	-1.64%
			5610	4.958	34.932	5.076	35.518	-2.32%	-1.65%
			5620	4.971	34.919	5.086	35.506	-2.26%	-1.65%
			5640	4.990	34.891	5.106	35.483	-2.27%	-1.67%
			5660	5.011	34.837	5.127	35.460	-2.26%	-1.76%
			5670	5.026	34.810	5.137	35.449	-2.16%	-1.80%
			5680	5.037	34.780	5.147	35.437	-2.14%	-1.85%
			5690	5.051	34.761	5.158	35.426	-2.07%	-1.88%
			5700	5.062	34.752	5.168	35.414	-2.05%	-1.87%
			5710	5.076	34.741	5.178	35.403	-1.97%	-1.87%
			5720	5.089	34.730	5.188	35.391	-1.91%	-1.87%
			5745	5.110	34.687	5.214	35.363	-1.99%	-1.91%
			5750	5.114	34.677	5.219	35.357	-2.01%	-1.92%
			5755	5.118	34.661	5.224	35.351	-2.03%	-1.95%
			5765	5.133	34.635	5.234	35.340	-1.93%	-1.99%
			5775	5.146	34.612	5.245	35.329	-1.89%	-2.03%
			5785	5.157	34.588	5.255	35.317	-1.86%	-2.06%
			5795	5.170	34.569	5.265	35.305	-1.80%	-2.08%
			5800	5.176	34.566	5.270	35.300	-1.78%	-2.08%
			5800	5.176	34.566	5.270	35.300	-1.78%	-2.08%
			5805	5.182	34.557	5.275	35.294	-1.76%	-2.09%
			5825	5.211	34.534	5.296	35.271	-1.60%	-2.09%
			5835	5.221	34.525	5.305	35.230	-1.58%	-2.00%
			5845	5.228	34.514	5.315	35.210	-1.64%	-1.98%
			5855	5.236	34.498	5.325	35.197	-1.67%	-1.99%
			5865	5.244	34.477	5.336	35.190	-1.72%	-2.03%
			5865	5.244	34.477	5.336	35.190	-1.72%	-2.03%
			5865	5.244	34.477	5.336	35.190	-1.72%	-2.03%
			5865	5.244	34.477	5.336	35.190	-1.72%	-2.03%
			5875	5.256	34.450	5.347	35.183	-1.70%	-2.08%
			5885	5.268	34.423	5.357	35.177	-1.66%	-2.14%
			5905	5.299	34.387	5.379	35.163	-1.49%	-2.21%
10/15/2023	6000 Head	21.7	5935	5.321	34.874	5.411	35.143	-1.66%	-0.77%
			5970	5.364	34.851	5.448	35.120	-1.54%	-0.77%
			5985	5.375	34.828	5.464	35.110	-1.63%	-0.80%
			6000	5.406	34.773	5.480	35.100	-1.35%	-0.93%
			6075	5.505	34.737	5.569	35.010	-1.15%	-0.78%
			6085	5.529	34.698	5.580	34.998	-0.91%	-0.86%
			6185	5.667	34.563	5.698	34.878	-0.54%	-0.90%
			6275	5.796	34.397	5.805	34.770	-0.16%	-1.07%
			6305	5.814	34.349	5.840	34.734	-0.45%	-1.11%
			6345	5.884	34.258	5.887	34.686	-0.05%	-1.23%
			6475	6.059	34.068	6.041	34.530	0.30%	-1.34%
			6500	6.081	34.044	6.070	34.500	0.18%	-1.32%
			6545	6.121	33.862	6.122	34.446	-0.02%	-1.70%
			6665	6.256	33.724	6.265	34.302	-0.14%	-1.69%
			6675	6.283	33.676	6.273	34.290	0.16%	-1.79%
			6685	6.301	33.648	6.285	34.278	0.25%	-1.84%
			6785	6.414	33.475	6.400	34.158	0.22%	-2.00%
			6985	6.645	33.300	6.633	33.918	0.18%	-1.82%
			6995	6.649	33.251	6.644	33.906	0.08%	-1.93%
			7000	6.656	33.212	6.650	33.900	0.09%	-2.03%
			7005	6.664	33.177	6.656	33.894	0.12%	-2.12%
			7025	6.706	33.084	6.680	33.870	0.39%	-2.32%

Table 11-7
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/26/2023	6000 Head	20.1	5935	5.263	35.023	5.411	35.143	-2.74%	-0.34%
			5970	5.293	34.953	5.448	35.120	-2.85%	-0.48%
			5985	5.312	34.914	5.464	35.110	-2.78%	-0.58%
			6000	5.336	34.880	5.480	35.100	-2.63%	-0.63%
			6025	5.372	34.841	5.510	35.070	-2.50%	-0.65%
			6065	5.412	34.773	5.557	35.022	-2.61%	-0.71%
			6075	5.425	34.755	5.569	35.010	-2.59%	-0.73%
			6085	5.439	34.738	5.580	34.998	-2.53%	-0.74%
			6185	5.561	34.555	5.698	34.878	-2.40%	-0.93%
			6275	5.662	34.399	5.805	34.770	-2.46%	-1.07%
			6285	5.679	34.385	5.816	34.758	-2.36%	-1.07%
			6305	5.705	34.360	5.840	34.734	-2.31%	-1.08%
			6345	5.735	34.263	5.887	34.686	-2.58%	-1.16%
			6485	5.909	34.047	6.052	34.518	-2.36%	-1.36%
			6500	5.926	34.044	6.070	34.500	-2.37%	-1.32%
			6505	5.933	34.039	6.076	34.494	-2.35%	-1.32%
			6545	5.973	33.919	6.122	34.446	-2.43%	-1.53%
			6665	6.130	33.678	6.265	34.302	-2.15%	-1.82%
			6685	6.165	33.671	6.285	34.278	-1.91%	-1.77%
			6785	6.277	33.518	6.400	34.158	-1.92%	-1.87%
			6825	6.299	33.481	6.447	34.110	-2.30%	-1.84%
			6995	6.504	33.234	6.644	33.906	-2.11%	-1.98%
			7000	6.505	33.234	6.650	33.900	-2.18%	-1.96%
			7005	6.505	33.227	6.656	33.894	-2.27%	-1.97%
			7025	6.525	33.168	6.680	33.870	-2.32%	-2.07%
			7500	7.084	32.366	7.240	33.300	-2.15%	-2.85%
			7980	7.649	31.565	7.816	32.724	-2.14%	-3.54%
			8000	7.660	31.483	7.840	32.700	-2.30%	-3.72%
10/20/2023	S200-5800 Head	20.3	5180	4.483	35.340	4.635	36.009	-3.28%	-1.86%
			5190	4.499	35.325	4.645	35.998	-3.14%	-1.87%
			5200	4.513	35.317	4.655	35.986	-3.05%	-1.86%
			5210	4.524	35.305	4.666	35.975	-3.04%	-1.86%
			5220	4.532	35.290	4.676	35.963	-3.08%	-1.87%
			5240	4.548	35.257	4.696	35.940	-3.15%	-1.90%
			5250	4.559	35.231	4.706	35.929	-3.12%	-1.94%
			5260	4.567	35.198	4.717	35.917	-3.18%	-2.00%
			5270	4.577	35.169	4.727	35.906	-3.17%	-2.05%
			5280	4.589	35.154	4.737	35.894	-3.12%	-2.06%
			5290	4.604	35.139	4.748	35.883	-3.03%	-2.07%
			5300	4.619	35.123	4.758	35.871	-2.92%	-2.09%
			5310	4.630	35.105	4.768	35.860	-2.89%	-2.11%
			5320	4.641	35.090	4.778	35.849	-2.87%	-2.12%
			5500	4.836	34.799	4.963	35.643	-2.56%	-2.37%
			5510	4.843	34.777	4.973	35.632	-2.61%	-2.40%
			5520	4.849	34.755	4.983	35.620	-2.69%	-2.43%
			5530	4.860	34.723	4.994	35.609	-2.68%	-2.49%
			5540	4.873	34.665	5.004	35.597	-2.62%	-2.56%
			5550	4.889	34.653	5.014	35.586	-2.49%	-2.62%
			5560	4.908	34.641	5.024	35.574	-2.31%	-2.62%
			5580	4.944	34.638	5.045	35.551	-2.00%	-2.57%
			5600	4.960	34.611	5.065	35.529	-2.07%	-2.58%
			5610	4.967	34.603	5.076	35.518	-2.15%	-2.58%
			5620	4.976	34.587	5.086	35.506	-2.16%	-2.59%
			5640	4.993	34.524	5.106	35.483	-2.21%	-2.70%
			5660	5.017	34.463	5.127	35.460	-2.15%	-2.81%
			5670	5.035	34.450	5.137	35.449	-1.99%	-2.82%
			5680	5.055	34.441	5.147	35.437	-1.79%	-2.81%
			5690	5.070	34.436	5.158	35.426	-1.71%	-2.79%
			5700	5.080	34.431	5.168	35.414	-1.70%	-2.78%
			5710	5.090	34.430	5.178	35.403	-1.70%	-2.75%
			5720	5.099	34.425	5.188	35.391	-1.72%	-2.73%
			5745	5.118	34.366	5.214	35.363	-1.84%	-2.82%
			5750	5.120	34.352	5.219	35.357	-1.90%	-2.84%
			5755	5.124	34.339	5.224	35.351	-1.91%	-2.86%
			5765	5.134	34.311	5.234	35.340	-1.91%	-2.91%
			5775	5.149	34.285	5.245	35.329	-1.83%	-2.96%
			5785	5.166	34.263	5.255	35.317	-1.69%	-2.98%
			5795	5.181	34.247	5.265	35.305	-1.60%	-3.00%
			5800	5.188	34.245	5.270	35.300	-1.56%	-2.99%
			5800	5.188	34.245	5.270	35.300	-1.56%	-2.99%
			5805	5.194	34.244	5.275	35.294	-1.54%	-2.98%
			5825	5.218	34.223	5.296	35.271	-1.47%	-2.97%
			5835	5.229	34.204	5.305	35.230	-1.43%	-2.91%
			5845	5.237	34.192	5.315	35.210	-1.47%	-2.89%
			5855	5.244	34.188	5.325	35.197	-1.52%	-2.87%
			5865	5.252	34.170	5.336	35.190	-1.57%	-2.90%
			5865	5.252	34.170	5.336	35.190	-1.57%	-2.90%
			5865	5.252	34.170	5.336	35.190	-1.57%	-2.90%
			5865	5.252	34.170	5.336	35.190	-1.57%	-2.90%
			5875	5.260	34.133	5.347	35.183	-1.63%	-2.98%
			5885	5.272	34.096	5.357	35.177	-1.59%	-3.07%
			5905	5.301	34.061	5.379	35.163	-1.45%	-3.13%
11/01/2023	S200-5800 Head	20.0	5180	4.417	35.318	4.635	36.009	-4.70%	-1.92%
			5190	4.432	35.298	4.645	35.998	-4.59%	-1.94%
			5200	4.447	35.282	4.655	35.986	-4.47%	-1.96%
			5210	4.459	35.268	4.666	35.975	-4.44%	-1.97%
			5220	4.470	35.257	4.676	35.963	-4.41%	-1.96%
			5240	4.488	35.222	4.696	35.940	-4.43%	-2.00%
			5250	4.495	35.205	4.706	35.929	-4.48%	-2.02%
			5260	4.504	35.185	4.717	35.917	-4.52%	-2.04%
			5270	4.513	35.162	4.727	35.906	-4.53%	-2.07%
			5280	4.525	35.137	4.737	35.894	-4.48%	-2.11%
			5290	4.536	35.112	4.748	35.883	-4.47%	-2.15%
			5300	4.548	35.095	4.758	35.871	-4.41%	-2.16%
			5310	4.561	35.079	4.768	35.860	-4.34%	-2.18%
			5320	4.575	35.059	4.778	35.849	-4.25%	-2.20%
			5500	4.768	34.788	4.963	35.643	-3.93%	-2.40%
			5510	4.773	34.771	4.973	35.632	-4.02%	-2.42%
			5520	4.781	34.752	4.983	35.620	-4.05%	-2.44%
			5530	4.790	34.722	4.994	35.609	-4.08%	-2.49%
			5540	4.802	34.660	5.004	35.597	-4.04%	-2.55%
			5550	4.819	34.654	5.014	35.586	-3.89%	-2.62%
			5560	4.840	34.625	5.024	35.574	-3.66%	-2.67%
			5580	4.881	34.594	5.045	35.551	-3.25%	-2.69%
			5600	4.900	34.584	5.065	35.529	-3.26%	-2.63%
			5610	4.906	34.589	5.076	35.518	-3.35%	-2.62%
			5620	4.911	34.576	5.086	35.506	-3.44%	-2.62%
			5640	4.923	34.533	5.106	35.483	-3.58%	-2.68%
			5660	4.947	34.462	5.127	35.460	-3.51%	-2.81%
			5670	4.965	34.442	5.137	35.449	-3.35%	-2.84%
			5680	4.985	34.429	5.147	35.437	-3.15%	-2.84%
			5690	5.001	34.421	5.158	35.426	-3.04%	-2.84%
			5700	5.015	34.415	5.168	35.414	-2.96%	-2.82%
			5745	5.052	34.385	5.214	35.363	-3.11%	-2.77%
			5750	5.054	34.375	5.219	35.357	-3.16%	-2.79%
			5755	5.056	34.366	5.224	35.351	-3.22%	-2.79%
			5765	5.065	34.343	5.234	35.340	-3.23%	-2.82%
			5775	5.079	34.309	5.245	35.329	-3.16%	-2.89%
			5785	5.096	34.269	5.255	35.317	-3.03%	-2.97%
			5795	5.112	34.240	5.265	35.305	-2.91%	-3.02%
			5800	5.119	34.232	5.270	35.300	-2.87%	-3.03%
			5800	5.119	34.232	5.270	35.300	-2.87%	-3.03%
			5805	5.127	34.227	5.275	35.294	-2.81%	-3.02%
			5825	5.156	34.202	5.296	35.271	-2.64%	-3.03%
			5835	5.167	34.190	5.305	35.230	-2.60%	-2.95%
			5865	5.190	34.191	5.336	35.190	-2.74%	-2.84%
			5865	5.190	34.191	5.336	35.190	-2.74%	-2.84%
			5865	5.190	34.191	5.336	35.190	-2.74%	-2.84%
			5865	5.190	34.191	5.336	35.190	-2.74%	-2.84%
			5875	5.195	34.160	5.347	35.183	-2.84%	-2.91%
			5885	5.201	34.121	5.357	35.177	-2.91%	-3.00%
			5905	5.232	34.067	5.379	35.163	-2.73%	-3.12%
			5800	5.119	34.232	5.270	35.300	-2.87%	-3.03%
			5800	5.119	34.232	5.270	35.300	-2.87%	-3.03%

Table 11-8
Measured Head Tissue Properties

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
10/08/2023	6000 Head	21.5	5935	5.303	34.658	5.411	35.143	-2.00%	-1.38%
			5985	5.314	34.587	5.464	35.110	-2.75%	-1.49%
			6000	5.340	34.449	5.480	35.100	-2.55%	-1.85%
			6085	5.438	34.395	5.580	34.998	-2.54%	-1.72%
			6185	5.574	34.249	5.698	34.878	-2.18%	-1.80%
			6275	5.684	34.083	5.805	34.770	-2.08%	-1.98%
			6305	5.704	34.056	5.840	34.734	-2.33%	-1.95%
			6345	5.770	33.968	5.887	34.686	-1.99%	-2.07%
			6475	5.928	33.769	6.041	34.530	-1.87%	-2.20%
			6500	5.942	33.741	6.070	34.500	-2.11%	-2.20%
			6545	5.982	33.578	6.122	34.446	-2.29%	-2.52%
			6665	6.099	33.431	6.265	34.302	-2.65%	-2.54%
			6675	6.130	33.372	6.273	34.290	-2.28%	-2.68%
			6685	6.148	33.345	6.285	34.278	-2.18%	-2.72%
			6785	6.242	33.159	6.400	34.158	-2.47%	-2.92%
			6985	6.441	33.019	6.633	33.918	-2.89%	-2.65%
			7000	6.447	32.919	6.650	33.900	-3.05%	-2.89%
			7005	6.453	32.880	6.656	33.894	-3.05%	-2.99%
			7025	6.497	32.794	6.680	33.870	-2.74%	-3.18%

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2. The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

11.2 SAR Test System Verification

Prior to SAR assessment, the system is verified to ±10% of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in SAR System Validation Appendix.

Table 11-9
System Verification Results – Head

System Verification TARGET & MEASURED																	
SAR System	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp. (C)	Liquid Temp. (C)	Input Power (W)	Source SN	Probe SN	DAE	Measured SAR 1g (W/kg)	1W Target SAR 1g (W/kg)	1W Normalized SAR 1g (W/kg)	Deviation 1g (%)	Measured SAR 10g (W/kg)	1W Target SAR 10g (W/kg)	1W Normalized SAR 10g (W/kg)	Deviation 10g (%)
G	13	HEAD	10/14/2023	22.5	22.5	1.00	1002	7417	665	0.508	0.523	0.508	-2.87%	0.314	0.327	0.314	-3.98%
K1	750	HEAD	09/18/2023	22.8	22.9	0.20	1003	7402	1502	1.680	8.480	8.400	-0.94%	1.110	5.560	5.550	-0.18%
K1	750	HEAD	09/25/2023	21.1	20.9	0.20	1003	7402	1502	1.710	8.480	8.550	0.83%	1.120	5.560	5.600	0.72%
K1	750	HEAD	10/09/2023	23.3	23.0	0.20	1003	7402	1502	1.700	8.480	8.500	0.24%	1.140	5.560	5.700	2.52%
K4	750	HEAD	10/11/2023	19.0	19.5	0.20	1046	7640	1645	1.740	8.690	8.700	0.12%	1.150	5.700	5.750	0.88%
K1	750	HEAD	10/11/2023	23.4	23.0	0.20	1003	7402	1502	1.660	8.480	8.300	-2.12%	1.110	5.560	5.550	-0.18%
K4	750	HEAD	10/12/2023	21.5	19.8	0.20	1046	7640	1645	1.760	8.690	8.800	1.27%	1.150	5.700	5.750	0.88%
K4	750	HEAD	10/16/2023	22.1	21.3	0.20	1046	7640	1645	1.730	8.690	8.650	-0.46%	1.130	5.700	5.650	-0.88%
K6	750	HEAD	10/18/2023	22.3	22.2	0.20	1046	7491	1532	1.730	8.690	8.650	-0.46%	1.140	5.700	5.700	0.00%
K4	750	HEAD	10/27/2023	22.5	22.1	0.20	1046	7640	1645	1.800	8.690	9.000	3.57%	1.170	5.700	5.850	2.63%
K1	835	HEAD	09/14/2023	21.8	22.5	0.20	4d180	7402	1502	2.020	9.630	10.100	4.88%	1.350	6.270	6.750	7.66%
K5	835	HEAD	09/25/2023	22.2	22.3	0.20	4d119	7637	1652	1.890	9.720	9.450	-2.78%	1.250	6.380	6.250	-2.04%
K5	835	HEAD	10/06/2023	21.3	19.8	0.20	4d119	7637	1652	1.950	9.720	9.750	0.31%	1.280	6.380	6.400	0.31%
K5	835	HEAD	10/09/2023	21.5	20.8	0.20	4d119	7637	1652	1.950	9.720	9.750	0.31%	1.250	6.380	6.250	-2.04%
K5	835	HEAD	10/12/2023	22.0	20.8	0.20	4d180	7637	1652	1.870	9.630	9.350	-2.91%	1.230	6.270	6.150	-1.91%
K5	835	HEAD	10/18/2023	22.8	23.0	0.20	4d119	7637	1652	1.840	9.720	9.200	-5.35%	1.210	6.380	6.050	-5.17%
K6	835	HEAD	10/24/2023	21.1	20.5	0.20	4d119	7491	1532	1.930	9.720	9.650	-0.72%	1.270	6.380	6.350	-0.47%
L	1750	HEAD	09/20/2023	23.5	22.3	0.10	1150	7409	1334	3.820	36.900	38.200	3.52%	2.030	19.400	20.300	4.64%
G	1750	HEAD	09/27/2023	20.9	23.3	0.10	1008	7417	665	3.530	37.400	35.300	-5.61%	1.840	19.600	18.400	-6.12%
C	1750	HEAD	10/02/2023	21.1	21.1	0.10	1008	7661	728	3.590	37.400	35.900	-4.01%	1.910	19.600	19.100	-2.55%
K4	1750	HEAD	10/02/2023	21.9	21.5	0.10	1051	7640	1645	3.830	36.100	38.300	6.09%	1.990	19.000	19.900	4.74%
C	1750	HEAD	10/06/2023	23.4	22.2	0.10	1008	7661	728	3.620	37.400	36.200	-3.21%	1.910	19.600	19.100	-2.55%
S	1750	HEAD	10/11/2023	22.0	20.4	0.10	1148	7713	1530	3.650	37.200	36.500	-1.88%	1.950	19.400	19.500	0.52%
K3	1750	HEAD	10/12/2023	22.1	21.0	0.10	1051	7558	1364	3.630	36.100	36.300	0.55%	1.940	19.000	19.400	2.11%
AM8	1900	HEAD	09/18/2023	20.3	21.1	0.10	5d180	7421	604	4.120	39.200	41.200	5.10%	2.110	20.600	21.100	2.43%
P	1900	HEAD	09/20/2023	21.9	21.3	0.10	5d148	7659	1407	4.070	40.100	40.700	1.50%	2.080	21.000	20.800	-0.95%
P	1900	HEAD	09/25/2023	22.1	21.3	0.10	5d148	7659	1407	3.940	40.100	39.400	-1.75%	2.020	21.000	20.200	-3.81%
AM8	1900	HEAD	09/25/2023	20.3	20.8	0.10	5d180	7421	604	4.230	39.200	42.300	7.91%	2.160	20.600	21.600	4.85%
P	1900	HEAD	09/27/2023	20.7	21.3	0.10	5d148	7659	1407	4.100	40.100	41.000	2.24%	2.090	21.000	20.900	-0.48%
P	1900	HEAD	10/04/2023	21.6	20.5	0.10	5d148	7659	1407	4.070	40.100	40.700	1.50%	2.080	21.000	20.800	-0.95%
AM8	1900	HEAD	10/05/2023	20.0	20.8	0.10	5d180	7421	604	4.200	39.200	42.000	7.14%	2.150	20.600	21.500	4.37%
P	1900	HEAD	10/09/2023	19.9	20.3	0.10	5d148	7659	1407	3.980	40.100	39.800	-0.75%	2.030	21.000	20.300	-3.33%
AM8	1900	HEAD	10/16/2023	20.2	20.0	0.10	5d181	7421	604	4.210	39.900	42.100	5.51%	2.150	21.100	21.500	1.90%

Table 11-10
System Verification Results – Head Continued

System Verification TARGET & MEASURED																	
SAR System	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp. (C)	Liquid Temp. (C)	Input Power (W)	Source SN	Probe SN	DAE	Measured SAR 1g (W/kg)	1W Target SAR 1g (W/kg)	1W Normalized SAR 1g (W/kg)	Deviation 1g (%)	Measured SAR 10g (W/kg)	1W Target SAR 10g (W/kg)	1W Normalized SAR 10g (W/kg)	Deviation 10g (%)
AM1	2300	HEAD	09/18/2023	22.2	20.8	0.10	1064	7420	1333	5.100	48.900	51.000	4.29%	2.410	23.400	24.100	2.99%
S	2300	HEAD	10/03/2023	24.1	21.5	0.10	1116	7713	1530	4.750	49.600	47.500	-4.23%	2.310	23.800	23.100	-2.94%
S	2300	HEAD	10/09/2023	20.1	19.0	0.10	1116	7713	1530	4.560	49.600	45.600	-8.06%	2.210	23.800	22.100	-7.14%
AM1	2450	HEAD	09/18/2023	22.2	20.8	0.10	750	7420	1333	5.510	52.600	55.100	4.75%	2.550	24.500	25.500	4.08%
K3	2450	HEAD	09/25/2023	21.9	22.5	0.10	945	7547	1322	5.420	51.900	54.200	4.43%	2.500	24.600	25.000	1.63%
K3	2450	HEAD	09/27/2023	22.0	20.2	0.10	945	7547	1322	5.180	51.900	51.800	-0.19%	2.360	24.600	23.600	-4.07%
K3	2450	HEAD	10/02/2023	22.9	21.5	0.10	945	7547	1322	5.510	51.900	55.100	6.17%	2.540	24.600	25.400	3.25%
O	2450	HEAD	10/02/2023	22.7	21.7	0.10	981	7570	1558	5.450	53.900	54.500	1.11%	2.530	25.400	25.300	-0.39%
AM9	2450	HEAD	10/09/2023	21.6	22.6	0.10	750	7427	1403	5.150	52.600	51.500	-2.09%	2.350	24.500	23.500	-4.08%
O	2450	HEAD	10/09/2023	19.6	22.3	0.10	981	7570	1558	5.090	53.900	50.900	-5.57%	2.320	25.400	23.200	-8.66%
S	2450	HEAD	10/31/2023	22.9	21.7	0.10	981	7713	1530	5.140	53.900	51.400	-4.64%	2.390	25.400	23.900	-5.91%
AM1	2600	HEAD	09/18/2023	22.2	20.8	0.10	1042	7420	1333	6.020	55.800	60.200	7.89%	2.680	24.900	26.800	7.63%
K3	2600	HEAD	09/25/2023	21.9	22.5	0.10	1009	7547	1322	5.750	57.300	57.500	0.35%	2.550	25.800	25.500	-1.16%
K3	2600	HEAD	09/27/2023	22.0	20.2	0.10	1009	7547	1322	5.550	57.300	55.500	-3.14%	2.420	25.800	24.200	-6.20%
K3	2600	HEAD	10/02/2023	22.9	21.5	0.10	1009	7547	1322	5.910	57.300	59.100	3.14%	2.620	25.800	26.200	1.55%
L	2600	HEAD	10/03/2023	22.5	21.7	0.10	1004	7409	1334	5.830	57.800	58.300	0.87%	2.600	25.700	26.000	1.17%
AM9	2600	HEAD	10/09/2023	21.6	22.6	0.10	1042	7427	1403	5.730	55.800	57.300	2.69%	2.510	24.900	25.100	0.80%
AM9	2600	HEAD	10/11/2023	22.1	22.7	0.10	1042	7427	1403	5.600	55.800	56.000	0.36%	2.440	24.900	24.400	-2.01%
AM9	2600	HEAD	10/18/2023	22.3	23.1	0.10	1042	7427	1403	5.610	55.800	56.100	0.54%	2.460	24.900	24.600	-1.20%
AM4	3500	HEAD	09/27/2023	22.6	21.2	0.10	1126	7490	1644	6.830	67.000	68.300	1.94%	2.580	25.000	25.800	3.20%
AM4	3500	HEAD	10/02/2023	21.7	21.0	0.10	1126	7490	1644	7.100	67.000	71.000	5.97%	2.660	25.000	26.600	6.40%
AM6	3500	HEAD	10/02/2023	20.8	20.3	0.10	1055	7638	1408	6.660	66.000	66.600	0.91%	2.530	24.900	25.300	1.61%
AM4	3500	HEAD	10/23/2023	21.5	21.3	0.10	1055	7490	1644	6.740	66.000	67.400	2.12%	2.540	24.900	25.400	2.01%
AM6	3500	HEAD	10/23/2023	20.3	20.2	0.10	1126	7638	1408	6.980	67.000	69.800	4.18%	2.660	25.000	26.600	6.40%
L	3500	HEAD	11/05/2023	21.8	19.3	0.10	1059	7409	1334	6.390	63.700	63.900	0.31%	2.460	23.900	24.600	2.93%
AM4	3700	HEAD	09/27/2023	22.6	21.2	0.10	1097	7490	1644	6.810	68.100	68.100	0.00%	2.510	24.500	25.100	2.45%
AM4	3700	HEAD	10/02/2023	21.7	21.0	0.10	1097	7490	1644	6.760	68.100	67.600	-0.73%	2.490	24.500	24.900	1.63%
AM6	3700	HEAD	10/02/2023	20.8	20.3	0.10	1002	7638	1408	6.820	67.900	68.200	0.44%	2.500	24.700	25.000	1.21%
AM4	3700	HEAD	10/23/2023	21.5	21.3	0.10	1097	7490	1644	6.630	68.100	66.300	-2.64%	2.450	24.500	24.500	0.00%
AM6	3700	HEAD	10/23/2023	20.3	20.2	0.10	1097	7638	1408	6.980	68.100	69.800	2.50%	2.570	24.500	25.700	4.90%
L	3700	HEAD	11/05/2023	21.8	19.3	0.10	1067	7409	1334	6.860	66.900	68.600	2.54%	2.550	24.300	25.500	4.94%
AM6	3900	HEAD	10/02/2023	20.8	20.3	0.10	1062	7638	1408	7.190	68.600	71.900	4.81%	2.520	23.800	25.200	5.88%
AM4	3900	HEAD	10/23/2023	21.5	21.3	0.10	1062	7490	1644	6.840	68.600	68.400	-0.29%	2.410	23.800	24.100	1.26%
AM6	3900	HEAD	10/23/2023	20.3	20.2	0.10	1062	7638	1408	7.190	68.600	71.900	4.81%	2.520	23.800	25.200	5.88%
G	5250	HEAD	10/01/2023	22.7	20.8	0.05	1191	7417	665	3.670	80.400	73.400	-8.71%	1.040	23.100	20.800	-9.96%
O	5250	HEAD	10/15/2023	20.7	20.8	0.05	1191	7570	1558	3.770	80.400	75.400	-6.22%	1.090	23.100	21.800	-5.63%
O	5250	HEAD	10/20/2023	21.1	20.5	0.05	1191	7570	1558	3.760	80.400	75.200	-6.47%	1.090	23.100	21.800	-5.63%
G	5600	HEAD	10/01/2023	22.7	20.8	0.05	1191	7417	665	4.000	81.900	80.000	-2.32%	1.120	23.300	22.400	-3.86%
O	5600	HEAD	10/15/2023	20.7	20.8	0.05	1191	7570	1558	4.100	81.900	82.000	0.12%	1.170	23.300	23.400	0.43%
O	5600	HEAD	10/20/2023	21.1	20.5	0.05	1191	7570	1558	4.160	81.900	83.200	1.59%	1.190	23.300	23.800	2.15%
G	5750	HEAD	10/01/2023	22.7	20.8	0.05	1191	7417	665	3.580	78.400	71.600	-8.67%	1.010	22.300	20.200	-9.42%
O	5750	HEAD	10/15/2023	20.7	20.8	0.05	1191	7570	1558	3.800	78.400	76.000	-3.06%	1.090	22.300	21.800	-2.24%
O	5750	HEAD	10/20/2023	21.1	20.5	0.05	1191	7570	1558	3.720	78.400	74.400	-5.10%	1.070	22.300	21.400	-4.04%
G	5800	HEAD	10/01/2023	22.7	20.8	0.05	1191	7417	665	3.710	79.000	74.200	-6.08%	1.040	22.300	20.800	-6.73%
O	5800	HEAD	10/15/2023	20.7	20.8	0.05	1191	7570	1558	3.790	79.000	75.800	-4.05%	1.080	22.300	21.600	-3.14%
G	5800	HEAD	11/01/2023	19.8	20.4	0.05	1191	7417	665	3.690	79.000	73.800	-6.58%	1.050	22.300	21.000	-5.83%
H	6500	HEAD	10/08/2023	23.3	21.5	0.03	1018	7718	1368	6.880	293.000	275.200	-6.08%	1.250	54.100	50.000	-7.58%
H	6500	HEAD	10/15/2023	22.4	21.7	0.03	1018	7718	1368	6.950	293.000	278.000	-5.12%	1.270	54.100	50.800	-6.10%
AM7	6500	HEAD	10/26/2023	21.9	20.1	0.03	1020	7532	501	7.130	296.000	285.200	-3.65%	1.330	54.500	1.363	-2.42%
AM7	6500	HEAD	10/26/2023	21.9	20.1	0.03	1020	7532	501	7.130	270.000	256.000	-3.65%	1.330	54.500	1.363	-2.42%
AM7	8000	HEAD	10/26/2023	21.9	20.1	0.03	1006	7532	501	6.400	270.000	256.000	-5.19%	1.070	45.400	42.800	-5.73%

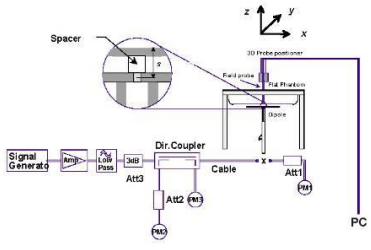


Figure 11-1
System Verification Setup Diagram

Figure 11-2
System Verification Setup Photo

11.3 Power Density Test System Verification

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check.

The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes.

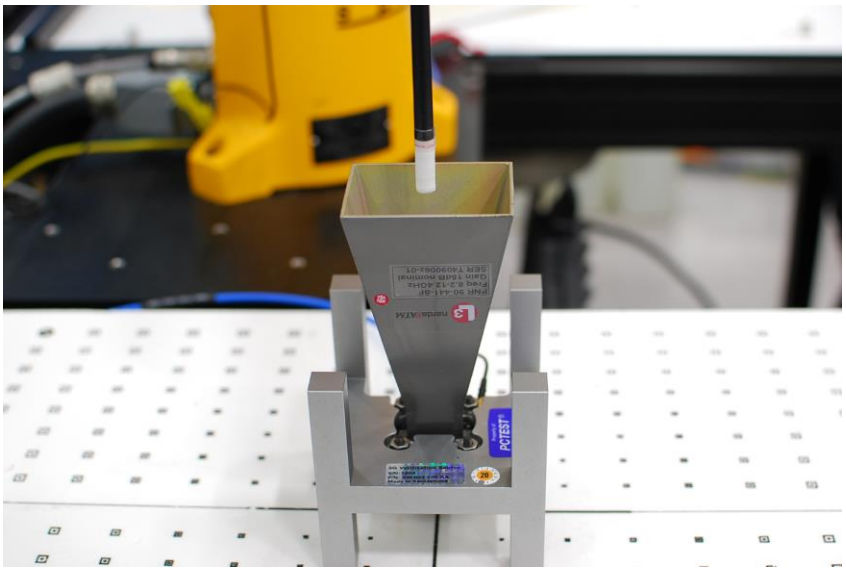


Figure 11-3
System Verification Setup Photo

Table 11-11
10 GHz Verifications

System Verification											
System	Frequency (GHz)	Date	Source S/N	Probe S/N	Prad (mW)	Normal psPD (W/m² over 4 cm²)		Deviation (dB)	Total psPD (W/m² over 4 cm²)		Deviation (dB)
						Measured	Target		Measured	Target	
R	10	10/02/2023	1004	9622	93.3	60.50	55.80	0.35	60.80	56.10	0.35
Q	10	10/04/2023	1004	9541	93.3	52.90	55.80	-0.23	53.40	56.10	-0.21
Q	10	10/10/2023	1004	9541	93.3	55.30	55.80	-0.04	55.60	56.10	-0.04

Note: A **10 mm distance spacing** was used from the reference horn antenna aperture to the probe element.

12 SAR DATA SUMMARY

12.1 GSM 850 Standalone SAR

Table 12-1

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	GSM 850	GSM	A	0221M	1:8.3	-0.08	836.60	190	33.5	31.85	Right Cheek	0	0.037	1.462	0.054	0.201	0.126		37.0	34.8	30.0
Head	GSM 850	GSM	A	0221M	1:8.3	0.11	836.60	190	33.5	31.85	Right Tilt	0	0.024	1.462	0.035	0.130	0.081		38.8		
Head	GSM 850	GSM	A	0221M	1:8.3	0.00	836.60	190	33.5	31.85	Left Cheek	0	0.061	1.462	0.089	0.331	0.207		34.8		
Head	GSM 850	GSM	A	0221M	1:8.3	-0.00	836.60	190	33.5	31.85	Left Tilt	0	0.027	1.462	0.039	0.147	0.092		38.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-2

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	GSM 850	GSM	E	0095M	1:8.3	0.03	836.60	190	32.0	30.57	Right Cheek	0	0.456	1.390	0.634	0.634	0.396		24.8	22.9	21.8
Head	GSM 850	GSM	E	0095M	1:8.3	0.01	836.60	190	32.0	30.57	Right Tilt	0	0.445	1.390	0.619	0.619	0.387		24.9		
Head	GSM 850	GSM	E	0095M	1:8.3	0.02	824.20	128	32.0	30.23	Left Cheek	0	0.618	1.503	0.929	0.929	0.581		23.1		
Head	GSM 850	GSM	E	0095M	1:8.3	-0.01	836.60	190	32.0	30.57	Left Cheek	0	0.603	1.390	0.838	0.838	0.524		23.6		
Head	GSM 850	GSM	E	0095M	1:8.3	0.02	848.80	251	32.0	30.55	Left Cheek	0	0.692	1.396	0.966	0.966	0.604	A1	22.9		
Head	GSM 850	GSM	E	0095M	1:8.3	0.02	836.60	190	32.0	30.57	Left Tilt	0	0.555	1.390	0.771	0.771	0.482		23.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-3

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	GSM 850	GSM	A	0221M	1:8.3	0.00	836.60	190	33.5	31.85	Back	10	0.254	1.462	0.371	0.602	0.376	A2	28.6	28.6	26.4
Hotspot	GPRS 850	GPRS 3 Tx Slots	A	0221M	1:2.76	-0.01	836.60	190	30.5	28.64	Back	10	0.267	1.535	0.410	0.439	0.274		29.9		
Hotspot	GPRS 850	GPRS 3 Tx Slots	A	0221M	1:2.76	0.04	836.60	190	30.5	28.64	Front	10	0.119	1.535	0.183	0.196	0.123		33.5		
Hotspot	GPRS 850	GPRS 3 Tx Slots	A	0221M	1:2.76	0.00	836.60	190	30.5	28.64	Bottom	10	0.075	1.535	0.115	0.123	0.077		35.5		
Hotspot	GPRS 850	GPRS 3 Tx Slots	A	0221M	1:2.76	0.00	836.60	190	30.5	28.64	Right	10	0.033	1.535	0.051	0.054	0.034		39.0		
Hotspot	GPRS 850	GPRS 3 Tx Slots	A	0221M	1:2.76	-0.04	836.60	190	30.5	28.64	Left	10	0.087	1.535	0.134	0.143	0.089		34.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-4

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-Worn	GSM 850	GSM	E	0095M	1:8.3	-0.01	836.60	190	33.0	32.39	Back	10	0.236	1.151	0.272	0.652	0.408		29.5	28.2	27.6
Hotspot	GPRS 850	GPRS 3 Tx Slots	E	0095M	1:2.76	-0.03	836.60	190	30.0	29.29	Back	10	0.337	1.178	0.397	0.629	0.393		29.6		
Hotspot	GPRS 850	GPRS 3 Tx Slots	E	0095M	1:2.76	-0.01	836.60	190	30.0	29.29	Front	10	0.444	1.178	0.523	0.829	0.518		28.4		
Hotspot	GPRS 850	GPRS 3 Tx Slots	E	0095M	1:2.76	-0.01	836.60	190	30.0	29.29	Top	10	0.467	1.178	0.550	0.871	0.544	A3	28.2		
Hotspot	GPRS 850	GPRS 3 Tx Slots	E	0095M	1:2.76	-0.17	836.60	190	30.0	29.29	Right	10	0.308	1.178	0.363	0.575	0.359		30.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.2 GSM 1900 Standalone SAR

Table 12-5

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	GSM 1900	GSM	A	0039M	1:8.3	-0.01	1909.80	810	30.0	28.85	Right Cheek	0	0.036	1.303	0.047	0.332	0.208	A4	34.1	34.1	29.3
Head	GSM 1900	GSM	A	0039M	1:8.3	0.01	1909.80	810	30.0	28.85	Right Tilt	0	0.017	1.303	0.022	0.157	0.098		37.3		
Head	GSM 1900	GSM	A	0039M	1:8.3	-0.09	1909.80	810	30.0	28.85	Left Cheek	0	0.027	1.303	0.035	0.249	0.156		35.3		
Head	GSM 1900	GSM	A	0039M	1:8.3	0.07	1909.80	810	30.0	28.85	Left Tilt	0	0.026	1.303	0.034	0.240	0.150		35.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-6

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	GSM 1900	GSM	A	0053M	1:8.3	-0.02	1880.00	661	29.0	27.61	Back	10	0.292	1.377	0.402	0.402	0.251	A5	23.8	20.4	18.8
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	-0.01	1909.80	810	23.0	21.82	Back	10	0.231	1.312	0.303	0.303	0.189		25.0		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	-0.01	1909.80	810	23.0	21.82	Front	10	0.168	1.312	0.220	0.220	0.138		26.4		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	0.01	1850.20	512	23.0	21.19	Bottom	10	0.528	1.517	0.801	0.801	0.501		20.8		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	0.05	1880.00	661	23.0	21.60	Bottom	10	0.568	1.380	0.784	0.784	0.490		20.9		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	0.02	1909.80	810	23.0	21.82	Bottom	10	0.665	1.312	0.872	0.872	0.545	A6	20.4		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	0.05	1909.80	810	23.0	21.82	Right	10	0.032	1.312	0.042	0.042	0.026		33.6		
Hotspot	GPRS 1900	GPRS 4 Tx Slots	A	0053M	1:2.076	0.01	1909.80	810	23.0	21.82	Left	10	0.031	1.312	0.041	0.041	0.026		33.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.3 UMTS 850 Standalone SAR

Table 12-7

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	UMTS 850	RMC	A	0221M	1:1	-0.10	836.60	4183	25.0	23.29	Right Cheek	0	140	0.053	1.483	0.079	0.216	0.135		36.0	34.3	29.4
Head	UMTS 850	RMC	A	0221M	1:1	0.02	836.60	4183	25.0	23.29	Right Tilt	0	140	0.034	1.483	0.050	0.139	0.087		38.0		
Head	UMTS 850	RMC	A	0221M	1:1	-0.02	836.60	4183	25.0	23.29	Left Cheek	0	140	0.080	1.483	0.119	0.327	0.204		34.3		
Head	UMTS 850	RMC	A	0221M	1:1	0.04	836.60	4183	25.0	23.29	Left Tilt	0	140	0.045	1.483	0.067	0.184	0.115		36.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-8

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	UMTS 850	RMC	E	1428M	1:1	-0.01	826.40	4132	22.5	21.22	Right Cheek	0	0.728	1.343	0.978	0.978	0.611		22.6	21.7	21.5
Head	UMTS 850	RMC	E	1428M	1:1	-0.01	836.60	4183	22.5	21.27	Right Cheek	0	0.734	1.327	0.974	0.974	0.609		22.6		
Head	UMTS 850	RMC	E	1428M	1:1	-0.01	846.60	4233	22.5	21.20	Right Cheek	0	0.764	1.349	1.031	1.031	0.644		22.4		
Head	UMTS 850	RMC	E	1428M	1:1	0.01	826.40	4132	22.5	21.22	Right Tilt	0	0.612	1.343	0.822	0.822	0.514		23.4		
Head	UMTS 850	RMC	E	1428M	1:1	-0.02	836.60	4183	22.5	21.27	Right Tilt	0	0.648	1.327	0.860	0.860	0.538		23.2		
Head	UMTS 850	RMC	E	1428M	1:1	0.02	846.60	4233	22.5	21.20	Right Tilt	0	0.654	1.349	0.882	0.882	0.551		23.0		
Head	UMTS 850	RMC	E	1428M	1:1	0.00	826.40	4132	22.5	21.22	Left Cheek	0	0.821	1.343	1.103	1.103	0.689		22.1		
Head	UMTS 850	RMC	E	1428M	1:1	0.00	836.60	4183	22.5	21.27	Left Cheek	0	0.837	1.327	1.111	1.111	0.694		22.0		
Head	UMTS 850	RMC	E	1428M	1:1	0.00	846.60	4233	22.5	21.20	Left Cheek	0	0.884	1.349	1.193	1.193	0.746	A7	21.7		
Head	UMTS 850	RMC	E	1428M	1:1	0.04	846.60	4233	22.5	21.20	Left Cheek	0	0.868	1.349	1.171	1.171	0.732		21.8		
Head	UMTS 850	RMC	E	1428M	1:1	-0.02	826.40	4132	22.5	21.22	Left Tilt	0	0.808	1.343	1.085	1.085	0.678		22.1		
Head	UMTS 850	RMC	E	1428M	1:1	-0.02	836.60	4183	22.5	21.27	Left Tilt	0	0.850	1.327	1.128	1.128	0.705		22.0		
Head	UMTS 850	RMC	E	1428M	1:1	0.06	846.60	4233	22.5	21.20	Left Tilt	0	0.861	1.349	1.161	1.161	0.726		21.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-9

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	UMTS 850	RMC	A	0221M	1:1	-0.07	836.60	4183	25.0	23.29	Back	10	140	0.413	1.483	0.612	0.612	0.383	A8	27.1	27.1	24.9
Hotspot	UMTS 850	RMC	A	0221M	1:1	0.01	836.60	4183	25.0	23.29	Front	10	140	0.209	1.483	0.310	0.310	0.194		30.1		
Hotspot	UMTS 850	RMC	A	0221M	1:1	-0.10	836.60	4183	25.0	23.29	Right	10	140	0.054	1.483	0.080	0.080	0.050		36.0		
Hotspot	UMTS 850	RMC	A	0221M	1:1	-0.05	836.60	4183	25.0	23.29	Left	10	140	0.115	1.483	0.171	0.171	0.107		32.7		
Hotspot	UMTS 850	RMC	A	0221M	1:1	-0.08	836.60	4183	25.0	23.29	Botom	10	140	0.116	1.483	0.172	0.172	0.108		32.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-10

Exposure	Band / Mode	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	UMTS 850	E	1428M	1:1	-0.01	836.60	4183	24.5	22.61	Back	10	0.336	1.545	0.519	0.610	0.381		27.3	25.8	25.2
Hotspot	UMTS 850	E	1428M	1:1	-0.03	836.60	4183	24.5	22.61	Front	10	0.387	1.545	0.598	0.703	0.439		26.7		
Hotspot	UMTS 850	E	1428M	1:1	0.03	836.60	4183	24.5	22.61	Top	10	0.485	1.545	0.749	0.881	0.551	A9	25.8		
Hotspot	UMTS 850	E	1428M	1:1	-0.01	836.60	4183	24.5	22.61	Right	10	0.309	1.545	0.477	0.561	0.351		27.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.4 UMTS 1750 Standalone SAR

Table 12-11

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	UMTS 1750	RMC	A	0082M	1:1	0.07	1752.60	1513	24.0	22.60	Right Cheek	0	32	0.083	1.380	0.115	0.338	0.211	A10	33.4	33.4	28.7
Head	UMTS 1750	RMC	A	0082M	1:1	-0.02	1752.60	1513	24.0	22.60	Right Tilt	0	135	0.067	1.380	0.092	0.273	0.171		34.3		
Head	UMTS 1750	RMC	A	0082M	1:1	-0.12	1752.60	1513	24.0	22.60	Left Cheek	0	32	0.061	1.380	0.084	0.249	0.156		34.7		
Head	UMTS 1750	RMC	A	0082M	1:1	0.03	1752.60	1513	24.0	22.60	Left Tilt	0	32	0.060	1.380	0.083	0.244	0.153		34.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-12

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	UMTS 1750	RMC	A	0082M	1:1	-0.03	1752.60	1513	20.0	19.54	Back	10	32	0.451	1.112	0.502	0.502	0.314	A11	23.0	19.8	19.0
Hotspot	UMTS 1750	RMC	A	0082M	1:1	0.03	1752.60	1513	20.0	19.54	Front	10	135	0.551	1.112	0.613	0.613	0.383		22.1		
Hotspot	UMTS 1750	RMC	A	0082M	1:1	0.00	1712.40	1312	20.0	19.52	Bottom	10	32	0.933	1.117	1.042	1.042	0.651		19.8		
Hotspot	UMTS 1750	RMC	A	0082M	1:1	-0.01	1732.40	1412	20.0	19.52	Bottom	10	32	0.921	1.117	1.029	1.029	0.643		19.9		
Hotspot	UMTS 1750	RMC	A	0082M	1:1	-0.02	1752.60	1513	20.0	19.54	Bottom	10	32	0.947	1.112	1.053	1.053	0.658	A12	19.8		
Hotspot	UMTS 1750	RMC	A	0082M	1:1	-0.10	1752.60	1513	20.0	19.54	Right	10	135	0.075	1.112	0.083	0.083	0.052		30.8		
Hotspot	UMTS 1750	RMC	A	0082M	1:1	-0.10	1752.60	1513	20.0	19.54	Left	10	135	0.074	1.112	0.082	0.082	0.051		30.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram											

12.5 UMTS 1900 Standalone SAR

Table 12-13

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	UMTS 1900	RMC	A	0039M	1:1	0.07	1907.60	9538	24.0	22.45	Right Cheek	0	99	0.045	1.429	0.064	0.330	0.206	A13	35.9	35.9	31.1
Head	UMTS 1900	RMC	A	0039M	1:1	0.04	1907.60	9538	24.0	22.45	Right Tilt	0	99	0.017	1.429	0.024	0.125	0.078		40.1		
Head	UMTS 1900	RMC	A	0039M	1:1	0.02	1907.60	9538	24.0	22.45	Left Cheek	0	34	0.030	1.429	0.043	0.220	0.138		37.7		
Head	UMTS 1900	RMC	A	0039M	1:1	-0.12	1907.60	9538	24.0	22.45	Left Tilt	0	34	0.032	1.429	0.046	0.234	0.146		37.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-14

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	UMTS 1900	RMC	A	0039M	1:1	-0.02	1907.60	9538	19.0	18.08	Back	10	99	0.336	1.236	0.415	0.415	0.259	A14	22.8	18.2	18.0
Hotspot	UMTS 1900	RMC	A	0039M	1:1	-0.05	1907.60	9538	19.0	18.08	Front	10	96	0.307	1.236	0.379	0.379	0.237		23.2		
Hotspot	UMTS 1900	RMC	A	0039M	1:1	0.01	1852.40	9262	19.0	17.77	Bottom	10	135	0.826	1.327	1.096	1.096	0.685		18.6		
Hotspot	UMTS 1900	RMC	A	0039M	1:1	0.00	1880.00	9400	19.0	18.05	Bottom	10	96	0.950	1.245	1.183	1.183	0.739		18.3		
Hotspot	UMTS 1900	RMC	A	0039M	1:1	-0.01	1907.60	9538	19.0	18.08	Bottom	10	99	0.966	1.236	1.194	1.194	0.746	A15	18.2		
Hotspot	UMTS 1900	RMC	A	0039M	1:1	-0.04	1907.60	9538	19.0	18.08	Right	10	97	0.042	1.236	0.052	0.052	0.033		31.8		
Hotspot	UMTS 1900	RMC	A	0039M	1:1	-0.01	1907.60	9538	19.0	18.08	Left	10	34	0.048	1.236	0.059	0.059	0.037		31.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram											

12.6 LTE Band 71 Standalone SAR

Table 12-15

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.11	680.50	133297	0.0	25.0	23.96	1	50	Right Cheek	0	0	0.106	1.271	0.135	0.288	0.180		33.7	33.1	28.3
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.00	680.50	133297	1.0	24.0	22.94	50	25	Right Cheek	0	0	0.081	1.276	0.103	0.278	0.174		33.9		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	-0.20	680.50	133297	0.0	25.0	23.96	1	50	Right Tilt	0	0	0.044	1.271	0.056	0.120	0.075		37.5		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.01	680.50	133297	1.0	24.0	22.94	50	25	Right Tilt	0	0	0.037	1.276	0.047	0.127	0.079		37.3		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.10	680.50	133297	0.0	25.0	23.96	1	50	Left Cheek	0	0	0.121	1.271	0.154	0.329	0.206		33.1		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.20	680.50	133297	1.0	24.0	22.94	50	25	Left Cheek	0	0	0.093	1.276	0.119	0.320	0.200		33.3		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.13	680.50	133297	0.0	25.0	23.96	1	50	Left Tilt	0	0	0.051	1.271	0.065	0.139	0.087		36.9		
Head	LTE Band 71	20	QPSK	A	0063M	1:1	0.10	680.50	133297	1.0	24.0	22.94	50	25	Left Tilt	0	0	0.038	1.276	0.048	0.131	0.082		37.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-16

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.00	680.50	133297	0.0	23.8	22.52	1	99	Right Cheek	0	0.577	1.343	0.775	0.775	0.484		24.9		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	-0.04	680.50	133297	0.3	23.5	22.22	50	50	Right Cheek	0	0.583	1.343	0.783	0.783	0.489		24.6		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.03	680.50	133297	0.0	23.8	22.52	1	99	Right Tilt	0	0.453	1.343	0.608	0.608	0.380		26.0		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	-0.01	680.50	133297	0.3	23.5	22.22	50	50	Right Tilt	0	0.456	1.343	0.612	0.612	0.383		25.6		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.00	680.50	133297	0.0	23.8	22.52	1	99	Left Cheek	0	0.745	1.343	1.001	1.001	0.626		23.8		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.02	680.50	133297	0.3	23.5	22.22	50	50	Left Cheek	0	0.765	1.343	1.027	1.027	0.642		23.4	23.3	22.8
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.02	680.50	133297	0.3	23.5	22.19	100	0	Left Cheek	0	0.778	1.352	1.052	1.052	0.658	A16	23.3		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.13	680.50	133297	0.0	23.8	22.52	1	99	Left Tilt	0	0.607	1.343	0.815	0.815	0.509		24.7		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	-0.01	680.50	133297	0.3	23.5	22.22	50	50	Left Tilt	0	0.628	1.343	0.843	0.843	0.527		24.2		
Head	LTE Band 71	20	QPSK	E	0084M	1:1	0.02	680.50	133297	0.3	23.5	22.19	100	0	Left Tilt	0	0.626	1.352	0.846	0.846	0.529		24.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-17

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.02	680.50	133297	0.0	25.0	23.96	1	50	Back	10	66	0.307	1.271	0.390	0.604	0.378		29.1		
Body-worn/Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.02	680.50	133297	1.0	24.0	22.94	50	25	Back	10	128	0.241	1.276	0.308	0.600	0.375		29.1		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.03	680.50	133297	0.0	25.0	23.96	1	50	Front	10	66	0.173	1.271	0.220	0.340	0.213		31.6		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.06	680.50	133297	1.0	24.0	22.94	50	25	Front	10	66	0.135	1.276	0.172	0.336	0.210		31.6		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.08	680.50	133297	0.0	25.0	23.96	1	50	Bottom	10	132	0.063	1.271	0.080	0.124	0.078		36.0		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.00	680.50	133297	1.0	24.0	22.94	50	25	Bottom	10	132	0.047	1.276	0.060	0.117	0.073		36.2	29.1	26.9
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.03	680.50	133297	0.0	25.0	23.96	1	50	Right	10	66	0.249	1.271	0.316	0.490	0.306		30.0		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	-0.03	680.50	133297	1.0	24.0	22.94	50	25	Right	10	132	0.199	1.276	0.254	0.495	0.309		30.0		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.16	680.50	133297	0.0	25.0	23.96	1	50	Left	10	66	0.160	1.271	0.203	0.315	0.197		31.9		
Hotspot	LTE Band 71	20	QPSK	A	0221M	1:1	0.09	680.50	133297	1.0	24.0	22.94	50	25	Left	10	66	0.134	1.276	0.171	0.334	0.209		31.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Body 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-18

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	0.00	680.50	133297	0.0	24.5	23.47	1	99	Back	10	0.315	1.268	0.399	0.591	0.369	A17	28.5		
Body-worn/Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	-0.02	680.50	133297	1.0	23.5	22.53	50	50	Back	10	0.197	1.250	0.246	0.459	0.287		29.6		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	-0.03	680.50	133297	0.0	24.5	23.47	1	99	Front	10	0.292	1.268	0.370	0.548	0.343		28.8		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	-0.03	680.50	133297	1.0	23.5	22.53	50	50	Front	10	0.232	1.250	0.290	0.540	0.338		28.9		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	-0.18	680.50	133297	0.0	24.5	23.47	1	99	Top	10	0.355	1.268	0.450	0.666	0.416	A18	28.0		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	0.01	680.50	133297	1.0	23.5	22.53	50	50	Top	10	0.287	1.250	0.359	0.668	0.418		28.0		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	-0.04	680.50	133297	0.0	24.5	23.47	1	99	Right	10	0.338	1.268	0.429	0.634	0.396		28.2		
Hotspot	LTE Band 71	20	QPSK	E	0084M	1:1	0.00	680.50	133297	1.0	23.5	22.53	50	50	Right	10	0.273	1.250	0.341	0.636	0.398		28.2	28.0	26.2
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Body 1.6 W/kg (mW/g) averaged over 1 gram									

12.7 LTE Band 12 Standalone SAR

Table 12-19

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.17	707.50	23095	0.0	25.3	23.99	1	25	Right Cheek	0	134	0.155	1.352	0.210	0.325	0.203		32.1		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	-0.00	707.50	23095	1.0	24.3	23.08	25	25	Right Cheek	0	0	0.112	1.324	0.148	0.289	0.181		32.6		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	-0.00	707.50	23095	0.0	25.3	23.99	1	25	Right Tilt	0	134	0.089	1.352	0.120	0.186	0.116		34.5		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.03	707.50	23095	1.0	24.3	23.08	25	25	Right Tilt	0	134	0.066	1.324	0.087	0.170	0.106		34.9		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.02	707.50	23095	0.0	25.3	23.99	1	25	Left Cheek	0	134	0.122	1.352	0.165	0.255	0.159		33.1		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.15	707.50	23095	1.0	24.3	23.08	25	25	Left Cheek	0	134	0.099	1.324	0.131	0.256	0.160		33.1		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.20	707.50	23095	0.0	25.3	23.99	1	25	Left Tilt	0	134	0.061	1.352	0.082	0.128	0.080		36.1		
Head	LTE Band 12	10	QPSK	A	0221M	1:1	0.05	707.50	23095	1.0	24.3	23.08	25	25	Left Tilt	0	134	0.062	1.324	0.082	0.160	0.100		35.2	32.1	27.2
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-20

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	-0.01	707.50	23095	0.0	23.0	21.78	1	0	Right Cheek	0	0.441	1.324	0.584	0.584	0.365		25.3		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.06	707.50	23095	0.0	23.0	21.75	25	0	Right Cheek	0	0.425	1.334	0.567	0.567	0.354		25.5		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.11	707.50	23095	0.0	23.0	21.78	1	0	Right Tilt	0	0.379	1.324	0.502	0.502	0.314		26.0		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	-0.02	707.50	23095	0.0	23.0	21.75	25	0	Right Tilt	0	0.362	1.334	0.483	0.483	0.302		26.2		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.18	707.50	23095	0.0	23.0	21.78	1	0	Left Cheek	0	0.604	1.324	0.800	0.800	0.500	A19	24.0	23.8	22.0
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.00	707.50	23095	0.0	23.0	21.75	25	0	Left Cheek	0	0.569	1.334	0.759	0.759	0.474		24.2		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.01	707.50	23095	0.0	23.0	21.56	50	0	Left Cheek	0	0.602	1.393	0.839	0.839	0.524		23.8		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.13	707.50	23095	0.0	23.0	21.78	1	0	Left Tilt	0	0.526	1.324	0.696	0.696	0.435		24.6		
HEAD	LTE Band 12	10	QPSK	E	0095M	1:1	0.01	707.50	23095	0.0	23.0	21.75	25	0	Left Tilt	0	0.517	1.334	0.690	0.690	0.431		24.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-21

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.01	707.50	23095	0.0	25.3	23.99	1	25	Back	10	134	0.364	1.352	0.492	0.592	0.370	A20	28.4	28.4	26.1
Body-worn/Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.05	707.50	23095	1.0	24.3	23.08	25	25	Back	10	134	0.282	1.324	0.373	0.565	0.353		28.6		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	-0.08	707.50	23095	0.0	25.3	23.99	1	25	Front	10	134	0.179	1.352	0.242	0.291	0.182		31.5		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.08	707.50	23095	1.0	24.3	23.08	25	25	Front	10	134	0.146	1.324	0.193	0.293	0.183		31.4		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.05	707.50	23095	0.0	25.3	23.99	1	25	Bottom	10	134	0.059	1.352	0.080	0.096	0.060		36.3		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.12	707.50	23095	1.0	24.3	23.08	25	25	Bottom	10	134	0.044	1.324	0.058	0.088	0.055		36.6		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.05	707.50	23095	0.0	25.3	23.99	1	25	Right	10	134	0.239	1.352	0.323	0.389	0.243		30.2		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.02	707.50	23095	1.0	24.3	23.08	25	25	Right	10	134	0.178	1.324	0.236	0.357	0.223		30.6		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.00	707.50	23095	0.0	25.3	23.99	1	25	Left	10	134	0.234	1.352	0.316	0.380	0.238		30.3		
Hotspot	LTE Band 12	10	QPSK	A	0221M	1:1	0.00	707.50	23095	1.0	24.3	23.08	25	25	Left	10	134	0.172	1.324	0.228	0.345	0.216		30.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-22

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.05	707.50	23095	0.0	24.8	23.94	1	0	Back	10	0.252	1.219	0.307	0.465	0.291		29.9	28.8	26.6
Body-worn/Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.02	707.50	23095	1.0	23.8	22.95	25	25	Back	10	0.201	1.216	0.244	0.466	0.291		29.9		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.01	707.50	23095	0.0	24.8	23.94	1	0	Front	10	0.285	1.219	0.347	0.526	0.329		29.4		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.06	707.50	23095	1.0	23.8	22.95	25	25	Front	10	0.222	1.216	0.270	0.514	0.321		29.5		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.03	707.50	23095	0.0	24.8	23.94	1	0	Top	10	0.324	1.219	0.395	0.598	0.374		28.8		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.04	707.50	23095	1.0	23.8	22.95	25	25	Top	10	0.244	1.216	0.297	0.565	0.353		29.1		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	-0.06	707.50	23095	0.0	24.8	23.94	1	0	Right	10	0.280	1.219	0.341	0.517	0.323		29.5		
Hotspot	LTE Band 12	10	QPSK	E	0095M	1:1	0.00	707.50	23095	1.0	23.8	22.95	25	25	Right	10	0.211	1.216	0.257	0.489	0.306		29.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.8 LTE Band 13 Standalone SAR

Table 12-23

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 13	10	QPSK	A	0221M	1:1	-0.03	782.00	23230	0.0	25.0	23.87	1	0	Right Cheek	0	0	0.108	1.297	0.140	0.255	0.159		33.5	32.3	27.6
Head	LTE Band 13	10	QPSK	A	0221M	1:1	-0.08	782.00	23230	1.0	24.0	22.80	25	12	Right Cheek	0	0	0.089	1.318	0.117	0.269	0.168		33.3		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	-0.06	782.00	23230	0.0	25.0	23.87	1	0	Right Tilt	0	0	0.073	1.297	0.095	0.172	0.108		35.2		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	0.08	782.00	23230	1.0	24.0	22.80	25	12	Right Tilt	0	0	0.053	1.318	0.070	0.160	0.100		35.6		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	-0.03	782.00	23230	0.0	25.0	23.87	1	0	Left Cheek	0	0	0.129	1.297	0.167	0.304	0.190		32.8		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	0.00	782.00	23230	1.0	24.0	22.80	25	12	Left Cheek	0	0	0.112	1.318	0.148	0.338	0.211		32.3		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	-0.02	782.00	23230	0.0	25.0	23.87	1	0	Left Tilt	0	0	0.064	1.297	0.083	0.151	0.094		35.8		
Head	LTE Band 13	10	QPSK	A	0221M	1:1	0.06	782.00	23230	1.0	24.0	22.80	25	12	Left Tilt	0	0	0.048	1.318	0.063	0.145	0.091		36.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-24

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.01	782.00	23230	0.0	24.0	22.12	1	49	Right Cheek	0	0.567	1.542	0.874	0.874	0.546		24.5	23.0	23.0
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.00	782.00	23230	0.5	23.5	22.20	25	0	Right Cheek	0	0.614	1.349	0.828	0.828	0.518		24.3		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	0.5	23.5	21.85	50	0	Right Cheek	0	0.608	1.462	0.889	0.889	0.556		24.0		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.01	782.00	23230	0.0	24.0	22.12	1	49	Right Tilt	0	0.463	1.542	0.714	0.714	0.446		25.4		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.00	782.00	23230	0.5	23.5	22.20	25	0	Right Tilt	0	0.524	1.349	0.707	0.707	0.442		25.0		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.00	782.00	23230	0.0	24.0	22.12	1	49	Left Cheek	0	0.710	1.542	1.095	1.095	0.684		23.6		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.01	782.00	23230	0.5	23.5	22.20	25	0	Left Cheek	0	0.768	1.349	1.036	1.036	0.648	A21	23.3		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	0.5	23.5	21.85	50	0	Left Cheek	0	0.761	1.462	1.113	1.113	0.696		23.0		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	0.0	24.0	22.12	1	49	Left Tilt	0	0.670	1.542	1.033	1.033	0.646		23.8		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.04	782.00	23230	0.5	23.5	22.20	25	0	Left Tilt	0	0.724	1.349	0.977	0.977	0.611		23.6		
Head	LTE Band 13	10	QPSK	E	0095M	1:1	0.01	782.00	23230	0.5	23.5	21.85	50	0	Left Tilt	0	0.735	1.462	1.075	1.075	0.672		23.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-25

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.07	782.00	23230	0.0	25.0	23.87	1	0	Back	10	0	0.443	1.297	0.575	0.602	0.376	A22	27.4	27.4	25.2
Body-worn/Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	-0.02	782.00	23230	1.0	24.0	22.80	25	12	Back	10	0	0.331	1.318	0.436	0.575	0.359		27.6		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	-0.01	782.00	23230	0.0	25.0	23.87	1	0	Front	10	0	0.197	1.297	0.256	0.268	0.168		30.9		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.08	782.00	23230	1.0	24.0	22.80	25	12	Front	10	0	0.168	1.318	0.221	0.292	0.183		30.5		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.14	782.00	23230	0.0	25.0	23.87	1	0	Bottom	10	0	0.112	1.297	0.145	0.152	0.095		33.4		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.01	782.00	23230	1.0	24.0	22.80	25	12	Bottom	10	0	0.098	1.318	0.129	0.170	0.106		32.9		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	-0.02	782.00	23230	0.0	25.0	23.87	1	0	Right	10	0	0.113	1.297	0.147	0.153	0.096		33.3		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.03	782.00	23230	1.0	24.0	22.80	25	12	Right	10	0	0.091	1.318	0.120	0.158	0.099		33.2		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	0.00	782.00	23230	0.0	25.0	23.87	1	0	Left	10	132	0.208	1.297	0.270	0.282	0.176		30.7		
Hotspot	LTE Band 13	10	QPSK	A	0221M	1:1	-0.05	782.00	23230	1.0	24.0	22.80	25	12	Left	10	132	0.150	1.318	0.198	0.261	0.163		31.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-26

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.03	782.00	23230	0.0	24.5	23.41	1	49	Back	10	0.297	1.285	0.382	0.552	0.345		28.7		
Body-worn/Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.03	782.00	23230	1.0	23.5	22.41	25	0	Back	10	0.253	1.285	0.325	0.592	0.370		28.4		
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.04	782.00	23230	0.0	24.5	23.41	1	49	Front	10	0.357	1.285	0.459	0.663	0.414		27.9		
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	1.0	23.5	22.41	25	0	Front	10	0.301	1.285	0.387	0.704	0.440		27.6	26.7	26.1
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	0.0	24.5	23.41	1	49	Top	10	0.435	1.285	0.559	0.808	0.505		27.0		
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.01	782.00	23230	1.0	23.5	22.41	25	0	Top	10	0.372	1.285	0.478	0.870	0.544		26.7		
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.03	782.00	23230	0.0	24.5	23.41	1	49	Right	10	0.270	1.285	0.347	0.502	0.314		29.1		
Hotspot	LTE Band 13	10	QPSK	E	0095M	1:1	-0.03	782.00	23230	1.0	23.5	22.41	25	0	Right	10	0.236	1.285	0.303	0.552	0.345		28.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.9 LTE Band 14 Standalone SAR

Table 12-27

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 14	10	QPSK	A	0221M	1:1	0.02	793.00	23330	0.0	25.3	23.77	1	25	Right Cheek	0	0	0.116	1.422	0.165	0.256	0.160		33.1		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	-0.01	793.00	23330	1.0	24.3	22.79	25	12	Right Cheek	0	0	0.095	1.416	0.135	0.262	0.164		33.0		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	-0.01	793.00	23330	0.0	25.3	23.77	1	25	Right Tilt	0	0	0.069	1.422	0.098	0.152	0.095		35.4		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	0.03	793.00	23330	1.0	24.3	22.79	25	12	Right Tilt	0	0	0.054	1.416	0.076	0.149	0.093		35.5		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	0.01	793.00	23330	0.0	25.3	23.77	1	25	Left Cheek	0	0	0.150	1.422	0.213	0.330	0.206		32.0	32.0	27.2
Head	LTE Band 14	10	QPSK	A	0221M	1:1	-0.06	793.00	23330	1.0	24.3	22.79	25	12	Left Cheek	0	0	0.121	1.416	0.171	0.334	0.209		32.0		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	0.04	793.00	23330	0.0	25.3	23.77	1	25	Left Tilt	0	0	0.073	1.422	0.104	0.161	0.101		35.1		
Head	LTE Band 14	10	QPSK	A	0221M	1:1	0.03	793.00	23330	1.0	24.3	22.79	25	12	Left Tilt	0	0	0.058	1.416	0.082	0.160	0.100		35.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-28

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.02	793.00	23330	0.0	23.0	21.29	1	0	Right Cheek	0	0.598	1.483	0.887	0.887	0.554		23.5		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.00	793.00	23330	0.0	23.0	21.31	25	0	Right Cheek	0	0.581	1.476	0.858	0.858	0.536		23.7		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	-0.05	793.00	23330	0.0	23.0	21.26	50	0	Right Cheek	0	0.653	1.493	0.975	0.975	0.609		23.1		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	-0.02	793.00	23330	0.0	23.0	21.29	1	0	Right Tilt	0	0.537	1.483	0.796	0.796	0.498		24.0		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.01	793.00	23330	0.0	23.0	21.31	25	0	Right Tilt	0	0.539	1.476	0.796	0.796	0.498		24.0		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	-0.07	793.00	23330	0.0	23.0	21.29	1	0	Left Cheek	0	0.673	1.483	0.998	0.998	0.624		23.0	22.6	22.0
Head	LTE Band 14	10	QPSK	E	0095M	1:1	-0.05	793.00	23330	0.0	23.0	21.31	25	0	Left Cheek	0	0.631	1.476	0.931	0.931	0.582		23.3		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	-0.04	793.00	23330	0.0	23.0	21.26	50	0	Left Cheek	0	0.677	1.493	1.011	1.011	0.632		23.0		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.01	793.00	23330	0.0	23.0	21.29	1	0	Left Tilt	0	0.747	1.483	1.108	1.108	0.693	A23	22.6		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.02	793.00	23330	0.0	23.0	21.31	25	0	Left Tilt	0	0.744	1.476	1.098	1.098	0.686		22.6		
Head	LTE Band 14	10	QPSK	E	0095M	1:1	0.03	793.00	23330	0.0	23.0	21.26	50	0	Left Tilt	0	0.742	1.493	1.108	1.108	0.693		22.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-29

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	-0.04	793.00	23330	0.0	25.3	23.77	1	25	Back	10	0	0.426	1.422	0.606	0.606	0.379		27.5		
Body-worn/Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.02	793.00	23330	1.0	24.3	22.79	25	12	Back	10	0	0.343	1.416	0.486	0.598	0.374		27.4		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	-0.05	793.00	23330	0.0	25.3	23.77	1	25	Front	10	0	0.217	1.422	0.309	0.309	0.193		30.4		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	-0.03	793.00	23330	1.0	24.3	22.79	25	12	Front	10	0	0.173	1.416	0.245	0.301	0.188		30.4		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.01	793.00	23330	0.0	25.3	23.77	1	25	Bottom	10	0	0.111	1.422	0.158	0.158	0.099		33.3		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	-0.07	793.00	23330	1.0	24.3	22.79	25	12	Bottom	10	0	0.089	1.416	0.126	0.155	0.097		33.3	27.4	25.2
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.06	793.00	23330	0.0	25.3	23.77	1	25	Right	10	0	0.129	1.422	0.183	0.183	0.114		32.7		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.03	793.00	23330	1.0	24.3	22.79	25	12	Right	10	0	0.101	1.416	0.143	0.176	0.110		32.7		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.06	793.00	23330	0.0	25.3	23.77	1	25	Left	10	0	0.179	1.422	0.255	0.255	0.159		31.2		
Hotspot	LTE Band 14	10	QPSK	A	0221M	1:1	0.01	793.00	23330	1.0	24.3	22.79	25	12	Left	10	0	0.141	1.416	0.200	0.246	0.154		31.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-30

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.03	793.00	23330	0.0	24.8	23.68	1	0	Back	10	0.442	1.294	0.572	0.772	0.483	A24	27.2		
Body-worn/Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.03	793.00	23330	1.0	23.8	22.70	25	12	Back	10	0.355	1.288	0.457	0.777	0.486		27.2		
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.02	793.00	23330	0.0	24.8	23.68	1	0	Front	10	0.410	1.294	0.531	0.716	0.448		27.6		
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.01	793.00	23330	1.0	23.8	22.70	25	12	Front	10	0.360	1.288	0.464	0.788	0.493		27.1		
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	0.02	793.00	23330	0.0	24.8	23.68	1	0	Top	10	0.514	1.294	0.665	0.897	0.561	A25	26.6	26.5	26.1
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	0.01	793.00	23330	1.0	23.8	22.70	25	12	Top	10	0.414	1.288	0.533	0.906	0.566		26.5		
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.02	793.00	23330	0.0	24.8	23.68	1	0	Right	10	0.360	1.294	0.466	0.629	0.393		28.1		
Hotspot	LTE Band 14	10	QPSK	E	0095M	1:1	-0.01	793.00	23330	1.0	23.8	22.70	25	12	Right	10	0.289	1.288	0.372	0.632	0.395		28.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.10 LTE Band 26 (Cell) Standalone SAR

Table 12-31

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.06	831.50	26865	0.0	25.0	23.75	1	36	Right Cheek	0	140	0.057	1.334	0.076	0.219	0.137		36.2	34.4	29.6
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.21	831.50	26865	1.0	24.0	22.72	36	0	Right Cheek	0	140	0.045	1.343	0.060	0.219	0.137		36.2		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.01	831.50	26865	0.0	25.0	23.75	1	36	Right Tilt	0	140	0.046	1.334	0.061	0.177	0.111		37.1		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.17	831.50	26865	1.0	24.0	22.72	36	0	Right Tilt	0	140	0.032	1.343	0.043	0.156	0.098		37.7		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.19	831.50	26865	0.0	25.0	23.75	1	36	Left Cheek	0	140	0.087	1.334	0.116	0.335	0.209		34.4		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	-0.01	831.50	26865	1.0	24.0	22.72	36	0	Left Cheek	0	140	0.065	1.343	0.087	0.317	0.198		34.6		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.07	831.50	26865	0.0	25.0	23.75	1	36	Left Tilt	0	140	0.037	1.334	0.049	0.142	0.089		38.1		
Head	LTE Band 26	15	QPSK	A	0221M	1:1	0.11	831.50	26865	1.0	24.0	22.72	36	0	Left Tilt	0	140	0.029	1.343	0.039	0.141	0.088		38.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-32

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 26	15	QPSK	E	0095M	1:1	-0.02	831.50	26865	0.0	22.0	21.48	1	0	Right Cheek	0	0.507	1.127	0.571	0.571	0.357		24.4	23.2	21.0
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.02	831.50	26865	0.0	22.0	21.22	36	18	Right Cheek	0	0.518	1.197	0.620	0.620	0.388		24.1		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	-0.03	831.50	26865	0.0	22.0	21.48	1	0	Right Tilt	0	0.459	1.127	0.517	0.517	0.323		24.9		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.00	831.50	26865	0.0	22.0	21.22	36	18	Right Tilt	0	0.465	1.197	0.557	0.557	0.348		24.5		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.02	831.50	26865	0.0	22.0	21.48	1	0	Left Cheek	0	0.643	1.127	0.725	0.725	0.453	A26	23.4		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.04	831.50	26865	0.0	22.0	21.22	36	18	Left Cheek	0	0.628	1.197	0.752	0.752	0.470		23.2		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.03	831.50	26865	0.0	22.0	21.48	1	0	Left Tilt	0	0.527	1.127	0.594	0.594	0.371		24.3		
Head	LTE Band 26	15	QPSK	E	0095M	1:1	0.01	831.50	26865	0.0	22.0	21.22	36	18	Left Tilt	0	0.535	1.197	0.640	0.640	0.400		23.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-33

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.04	831.50	26865	0.0	25.0	23.75	1	36	Back	10	140	0.408	1.334	0.544	0.610	0.381	A27	27.6	27.6	25.5
Body-worn/Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	-0.02	831.50	26865	1.0	24.0	22.72	36	0	Back	10	140	0.314	1.343	0.422	0.596	0.373		27.8		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.14	831.50	26865	0.0	25.0	23.75	1	36	Front	10	140	0.198	1.334	0.264	0.296	0.185		30.8		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	-0.06	831.50	26865	1.0	24.0	22.72	36	0	Front	10	140	0.152	1.343	0.204	0.288	0.180		30.9		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.15	831.50	26865	0.0	25.0	23.75	1	36	Bottom	10	140	0.117	1.334	0.156	0.175	0.109		33.1		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	-0.09	831.50	26865	1.0	24.0	22.72	36	0	Bottom	10	140	0.092	1.343	0.124	0.175	0.109		33.1		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.09	831.50	26865	0.0	25.0	23.75	1	36	Right	10	132	0.038	1.334	0.051	0.057	0.036		38.0		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.07	831.50	26865	1.0	24.0	22.72	36	0	Right	10	132	0.036	1.343	0.048	0.068	0.043		37.2		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	0.16	831.50	26865	0.0	25.0	23.75	1	36	Left	10	132	0.113	1.334	0.151	0.169	0.106		33.2		
Hotspot	LTE Band 26	15	QPSK	A	0221M	1:1	-0.14	831.50	26865	1.0	24.0	22.72	36	0	Left	10	132	0.091	1.343	0.122	0.173	0.108		33.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-34

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.01	831.50	26865	0.0	24.5	23.38	1	36	Back	10	0.377	1.294	0.488	0.722	0.451		27.6	27.0	26.2
Body-worn/Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.07	831.50	26865	1.0	23.5	22.50	36	0	Back	10	0.300	1.259	0.378	0.703	0.439		27.7		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.03	831.50	26865	0.0	24.5	23.38	1	36	Front	10	0.435	1.294	0.563	0.833	0.521	A28	27.0		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	0.00	831.50	26865	1.0	23.5	22.50	36	0	Front	10	0.347	1.259	0.437	0.813	0.508		27.1		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.06	831.50	26865	0.0	24.5	23.38	1	36	Top	10	0.431	1.294	0.558	0.825	0.516		27.0		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.01	831.50	26865	1.0	23.5	22.50	36	0	Top	10	0.346	1.259	0.436	0.811	0.507		27.1		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	0.03	831.50	26865	0.0	24.5	23.38	1	36	Right	10	0.333	1.294	0.431	0.637	0.398		28.2		
Hotspot	LTE Band 26	15	QPSK	E	0095M	1:1	-0.03	831.50	26865	1.0	23.5	22.50	36	0	Right	10	0.270	1.259	0.340	0.633	0.396		28.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.11 LTE Band 66 (AWS) Standalone SAR

Table 12-35

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 66	10	QPSK	A	0265M	1:1	0.01	1715.00	132022	0.0	24.5	23.37	1	49	Right Cheek	0	N/A	32	0.106	1.297	0.137	0.315	0.197		33.1	32.8	28.1
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.02	1720.00	132072	0.0	24.5	23.57	1	0	Right Cheek	0	N/A	32	0.114	1.239	0.141	0.324	0.203		33.0		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.01	1720.00	132072	0.0	24.5	23.27	1	99	Right Cheek	0	N/A	32	0.091	1.327	0.121	0.277	0.173		33.7		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.11	1720.00	132072	1.0	23.5	22.51	50	0	Right Cheek	0	N/A	32	0.093	1.256	0.117	0.337	0.211		32.8		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.09	1720.00	132072	0.0	24.5	23.57	1	0	Right Tilt	0	N/A	32	0.053	1.239	0.066	0.150	0.094		36.3		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.09	1720.00	132072	1.0	23.5	22.51	50	0	Right Tilt	0	N/A	99	0.045	1.256	0.057	0.163	0.102		36.0		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	0.13	1720.00	132072	0.0	24.5	23.57	1	0	Left Cheek	0	N/A	32	0.075	1.239	0.093	0.213	0.133		34.8		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	0.08	1720.00	132072	1.0	23.5	22.51	50	0	Left Cheek	0	N/A	32	0.063	1.256	0.079	0.228	0.143		34.5		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	0.13	1720.00	132072	0.0	24.5	23.57	1	0	Left Tilt	0	N/A	32	0.054	1.239	0.067	0.153	0.096		36.2		
Head	LTE Band 66	20	QPSK	A	0265M	1:1	0.19	1720.00	132072	1.0	23.5	22.51	50	0	Left Tilt	0	N/A	32	0.049	1.256	0.062	0.177	0.111		35.6		
Head	LTE Band 66	10	QPSK	A	0265M	1:1	-0.04	1715.00	132022	0.0	24.5	23.56	1	49	Right Cheek	0	ULCA 66B	32	0.101	1.242	0.125	0.287	0.179		33.5		
		10						1724.90	132121				1	0													
Head	LTE Band 66	20	QPSK	A	0265M	1:1	-0.12	1720.00	132072	0.0	24.5	23.50	1	99	Right Cheek	0	ULCA 66C	32	0.097	1.259	0.122	0.280	0.175		33.6		
		20						1739.80	132270				1	0													
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-36

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.02	1770.00	132572	0.0	19.5	19.01	1	0	Right Cheek	0	N/A	0.710	1.119	0.794	0.794	0.496		20.5		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.00	1770.00	132572	0.0	19.5	18.86	50	0	Right Cheek	0	N/A	0.634	1.159	0.735	0.735	0.459		20.8		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.03	1770.00	132572	0.0	19.5	19.01	1	0	Right Tilt	0	N/A	0.712	1.119	0.797	0.797	0.498		20.5		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.01	1720.00	132072	0.0	19.5	18.62	50	0	Right Tilt	0	N/A	0.697	1.225	0.854	0.854	0.534		20.2		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.02	1745.00	132322	0.0	19.5	18.67	50	0	Right Tilt	0	N/A	0.704	1.211	0.853	0.853	0.533		20.2		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.06	1770.00	132572	0.0	19.5	18.86	50	0	Right Tilt	0	N/A	0.712	1.159	0.825	0.825	0.516		20.3		
Head	LTE Band 66	10	QPSK	F	0265M	1:1	0.00	1775.00	132622	0.0	19.5	18.63	50	0	Right Tilt	0	N/A	0.738	1.222	0.902	0.902	0.564		19.9		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.01	1770.00	132572	0.0	19.5	18.79	100	0	Right Tilt	0	N/A	0.761	1.178	0.896	0.896	0.560		20.0	19.8	18.5
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.08	1770.00	132572	0.0	19.5	19.01	1	0	Left Cheek	0	N/A	0.402	1.119	0.450	0.450	0.281		23.0		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	-0.11	1770.00	132572	0.0	19.5	18.86	50	0	Left Cheek	0	N/A	0.351	1.159	0.407	0.407	0.254		23.4		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.06	1770.00	132572	0.0	19.5	19.01	1	0	Left Tilt	0	N/A	0.604	1.119	0.676	0.676	0.423		21.2		
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.01	1770.00	132572	0.0	19.5	18.86	50	0	Left Tilt	0	N/A	0.574	1.159	0.665	0.665	0.416		21.3		
Head	LTE Band 66	10	QPSK	F	0265M	1:1	0.01	1775.00	132622	0.0	19.5	18.57	50	0	Right Tilt	0	ULCA 66B	0.758	1.239	0.939	0.939	0.587		19.8		
		10						1765.10	132523				50	0												
Head	LTE Band 66	20	QPSK	F	0265M	1:1	0.01	1770.00	132572	0.0	19.5	18.70	100	0	Right Tilt	0	ULCA 66C	0.778	1.202	0.935	0.935	0.584	A29	19.8		
		20						1750.20	132374				100	0												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-37

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Tune state	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	-0.01	1720.00	132072	0.0	19.5	18.98	1	50	Back	10	N/A	0.546	32	1.127	0.615	0.615	0.384		21.6		
Body-worn/Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.02	1720.00	132072	0.0	19.5	18.98	50	0	Back	10	N/A	0.547	32	1.127	0.616	0.616	0.385	A30	21.6		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.01	1720.00	132072	0.0	19.5	18.98	1	50	Front	10	N/A	0.455	32	1.127	0.513	0.513	0.321		22.4		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.02	1720.00	132072	0.0	19.5	18.98	50	0	Front	10	N/A	0.457	32	1.127	0.515	0.515	0.322		22.4		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.03	1720.00	132072	0.0	19.5	18.98	1	50	Bottom	10	N/A	0.867	33	1.127	0.977	0.977	0.611		19.6		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.00	1745.00	132322	0.0	19.5	18.45	1	0	Bottom	10	N/A	0.818	135	1.274	1.042	1.042	0.651		19.3		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.12	1770.00	132572	0.0	19.5	18.85	1	50	Bottom	10	N/A	0.981	135	1.161	1.139	1.139	0.712		18.9		
Hotspot	LTE Band 66	10	QPSK	A	0265M	1:1	-0.01	1775.00	132622	0.0	19.5	18.64	25	0	Bottom	10	N/A	0.961	135	1.219	1.171	1.171	0.732		18.8		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.00	1720.00	132072	0.0	19.5	18.98	50	0	Bottom	10	N/A	0.864	33	1.127	0.974	0.974	0.609		19.6		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.01	1745.00	132322	0.0	19.5	18.66	50	0	Bottom	10	N/A	0.842	135	1.213	1.021	1.021	0.638		19.4		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.00	1770.00	132572	0.0	19.5	18.73	50	25	Bottom	10	N/A	1.000	135	1.194	1.194	1.194	0.746	A31	18.7		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.01	1770.00	132572	0.0	19.5	18.65	50	0	Bottom	10	N/A	0.945	135	1.216	1.149	1.149	0.718		18.9	18.7	18.5
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	-0.01	1770.00	132572	0.0	19.5	18.73	50	25	Bottom	10	N/A	0.984	135	1.194	1.175	1.175	0.734		18.8		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	-0.01	1720.00	132072	0.0	19.5	18.72	100	0	Bottom	10	N/A	0.862	32	1.197	1.032	1.032	0.645		19.4		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.02	1720.00	132072	0.0	19.5	18.98	1	50	Right	10	N/A	0.055	32	1.127	0.062	0.062	0.039		31.6		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.02	1720.00	132072	0.0	19.5	18.98	50	0	Right	10	N/A	0.057	32	1.127	0.064	0.064	0.040		31.4		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.03	1720.00	132072	0.0	19.5	18.98	1	50	Left	10	N/A	0.066	32	1.127	0.074	0.074	0.046		30.8		
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.00	1720.00	132072	0.0	19.5	18.98	50	0	Left	10	N/A	0.066	32	1.127	0.074	0.074	0.046		30.8		
Hotspot	LTE Band 66	10	QPSK	A	0265M	1:1	-0.02	1775.00	132622	0.0	19.5	18.48	25	0	Bottom	10	ULCA 66B	0.948	135	1.265	1.199	1.199	0.749		18.7		
		10						1765.10	132523				25	25												
Hotspot	LTE Band 66	20	QPSK	A	0265M	1:1	0.00	1770.00	132572	0.0	19.5	18.64	50	0	Bottom	10	ULCA 66C	0.923	135	1.219	1.125	1.125	0.703		19.0		
		20						1750.20	132374				50	50												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Blue entry represents variability measurement

Table 12-38

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	0.04	1770.00	132572	0.0	21.5	20.61	1	50	Back	10	N/A	0.184	1.227	0.226	0.226	0.141		28.0		
Body-worn/Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.01	1770.00	132572	0.0	21.5	20.62	50	25	Back	10	N/A	0.194	1.225	0.238	0.238	0.149		27.7		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.02	1770.00	132572	0.0	21.5	20.61	1	50	Front	10	N/A	0.208	1.227	0.255	0.255	0.159		27.4		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.01	1770.00	132572	0.0	21.5	20.62	50	25	Front	10	N/A	0.203	1.225	0.249	0.249	0.156		27.5		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.05	1770.00	132572	0.0	21.5	20.61	1	50	Top	10	N/A	0.533	1.227	0.654	0.654	0.409		23.3		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	0.00	1770.00	132572	0.0	21.5	20.41	1	0	Top	10	N/A	0.544	1.285	0.699	0.699	0.437		23.1		
Hotspot	LTE Band 66	10	QPSK	F	0265M	1:1	-0.04	1775.00	132622	0.0	21.5	20.53	1	0	Top	10	N/A	0.516	1.250	0.645	0.645	0.403		23.4		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.05	1770.00	132572	0.0	21.5	20.62	50	25	Top	10	N/A	0.530	1.225	0.649	0.649	0.406		23.4		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	0.02	1770.00	132572	0.0	21.5	20.61	1	50	Left	10	N/A	0.094	1.227	0.115	0.115	0.072		30.9		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.03	1770.00	132572	0.0	21.5	20.62	50	25	Left	10	N/A	0.096	1.225	0.118	0.118	0.074		30.8		
Hotspot	LTE Band 66	20	QPSK	F	0265M	1:1	-0.02	1770.00	132572	0.0	21.5	20.56	1	0	Top	10	ULCA 66C	0.541	1.242	0.672	0.672	0.420		23.2	23.1	20.5
		20						1750.20	132374				1	99												
Hotspot	LTE Band 66	10	QPSK	F	0265M	1:1	0.03	1775.00	132622	0.0	21.5	20.47	1	0	Top	10	ULCA 66B	0.495	1.268	0.628	0.628	0.393		23.5		
		10						1765.10	132523				1	49												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

12.12 LTE Band 25 (PCS) Standalone SAR

Table 12-39

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 25	20	QPSK	A	0039M	1:1	-0.18	1905.00	26590	0.0	24.5	23.75	1	99	Right Cheek	0	33	0.109	1.189	0.130	0.318	0.199		33.4	33.2	28.4
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.12	1905.00	26590	1.0	23.5	22.70	50	25	Right Cheek	0	33	0.090	1.202	0.108	0.334	0.209		33.2		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.06	1905.00	26590	0.0	24.5	23.75	1	99	Right Tilt	0	33	0.039	1.189	0.046	0.114	0.071		37.8		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.00	1905.00	26590	1.0	23.5	22.70	50	25	Right Tilt	0	33	0.041	1.202	0.049	0.152	0.095		36.6		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.10	1905.00	26590	0.0	24.5	23.75	1	99	Left Cheek	0	33	0.097	1.189	0.115	0.283	0.177		33.9		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.08	1905.00	26590	1.0	23.5	22.70	50	25	Left Cheek	0	33	0.082	1.202	0.099	0.305	0.191		33.6		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	0.07	1905.00	26590	0.0	24.5	23.75	1	99	Left Tilt	0	33	0.068	1.189	0.081	0.198	0.124		35.4		
Head	LTE Band 25	20	QPSK	A	0039M	1:1	-0.12	1905.00	26590	1.0	23.5	22.70	50	25	Left Tilt	0	33	0.070	1.202	0.084	0.260	0.163		34.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-40

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.05	1905.00	26590	0.0	19.5	19.04	1	50	Right Cheek	0	0.718	1.112	0.798	0.798	0.499		20.5	18.9	18.5
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.08	1860.00	26140	0.0	19.5	19.02	50	25	Right Cheek	0	0.729	1.117	0.814	0.814	0.509		20.4		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.01	1882.50	26365	0.0	19.5	18.97	50	0	Right Cheek	0	0.773	1.130	0.873	0.873	0.546		20.1		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.04	1905.00	26590	0.0	19.5	18.89	50	50	Right Cheek	0	0.799	1.151	0.920	0.920	0.575		19.9		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.01	1882.50	26365	0.0	19.5	18.97	100	0	Right Cheek	0	0.768	1.130	0.868	0.868	0.543		20.1		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.04	1860.00	26140	0.0	19.5	18.83	1	99	Right Tilt	0	0.980	1.167	1.144	1.144	0.715		18.9		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.10	1882.50	26365	0.0	19.5	18.82	1	50	Right Tilt	0	0.917	1.169	1.072	1.072	0.670		19.2		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.01	1905.00	26590	0.0	19.5	19.04	1	50	Right Tilt	0	1.020	1.112	1.134	1.134	0.709	A32	19.0		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.13	1905.00	26590	0.0	19.5	19.04	1	50	Right Tilt	0	1.000	1.112	1.112	1.112	0.695		19.0		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.02	1860.00	26140	0.0	19.5	19.02	50	25	Right Tilt	0	0.972	1.117	1.086	1.086	0.679		19.1		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.11	1882.50	26365	0.0	19.5	18.97	50	0	Right Tilt	0	0.876	1.130	0.990	0.990	0.619		19.5		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.20	1905.00	26590	0.0	19.5	18.89	50	50	Right Tilt	0	0.885	1.151	1.019	1.019	0.637		19.4		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.01	1882.50	26365	0.0	19.5	18.97	100	0	Right Tilt	0	0.970	1.130	1.096	1.096	0.685		19.1		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	-0.01	1905.00	26590	0.0	19.5	19.04	1	50	Left Cheek	0	0.520	1.112	0.578	0.578	0.361		21.9		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.00	1860.00	26140	0.0	19.5	19.02	50	25	Left Cheek	0	0.608	1.117	0.679	0.679	0.424		21.2		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.12	1860.00	26140	0.0	19.5	18.83	1	99	Left Tilt	0	0.658	1.167	0.768	0.768	0.480		20.6		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.03	1882.50	26365	0.0	19.5	18.82	1	50	Left Tilt	0	0.603	1.169	0.705	0.705	0.441		21.0		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.13	1905.00	26590	0.0	19.5	19.04	1	50	Left Tilt	0	0.784	1.112	0.872	0.872	0.545		20.1		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.02	1860.00	26140	0.0	19.5	19.02	50	25	Left Tilt	0	0.679	1.117	0.758	0.758	0.474		20.7		
Head	LTE Band 25	20	QPSK	F	1078M	1:1	0.06	1882.50	26365	0.0	19.5	18.97	100	0	Left Tilt	0	0.680	1.130	0.768	0.768	0.480		20.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-41

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.01	1905.00	26590	0.0	19.0	17.98	1	99	Back	10	99	0.306	1.265	0.387	0.387	0.242	A33	23.1	18.0	18.0
Body-worn/Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.02	1905.00	26590	0.0	19.0	17.94	50	25	Back	10	99	0.299	1.276	0.382	0.382	0.239		23.2		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.03	1905.00	26590	0.0	19.0	17.98	1	99	Front	10	135	0.239	1.265	0.302	0.302	0.189		24.2		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	0.00	1905.00	26590	0.0	19.0	17.94	50	25	Front	10	135	0.232	1.276	0.296	0.296	0.185		24.3		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.02	1860.00	26140	0.0	19.0	17.75	1	99	Bottom	10	96	0.858	1.334	1.145	1.145	0.716		18.4		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	0.01	1882.50	26365	0.0	19.0	17.57	1	50	Bottom	10	96	0.902	1.390	1.254	1.254	0.784		18.0		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.01	1905.00	26590	0.0	19.0	17.98	1	99	Bottom	10	96	0.948	1.265	1.199	1.199	0.749		18.2		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.02	1860.00	26140	0.0	19.0	17.78	50	50	Bottom	10	96	0.894	1.324	1.184	1.184	0.740		18.3		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.02	1882.50	26365	0.0	19.0	17.83	50	0	Bottom	10	96	0.879	1.309	1.151	1.151	0.719		18.4		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	0.02	1905.00	26590	0.0	19.0	17.94	50	25	Bottom	10	96	0.960	1.276	1.225	1.225	0.766	A34	18.1		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	0.01	1905.00	26590	0.0	19.0	17.92	100	0	Bottom	10	99	0.895	1.282	1.147	1.147	0.717		18.4		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	0.03	1905.00	26590	0.0	19.0	17.98	1	99	Right	10	99	0.032	1.265	0.040	0.040	0.025		32.9		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.02	1905.00	26590	0.0	19.0	17.94	50	25	Right	10	99	0.035	1.276	0.045	0.045	0.028		32.5		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.16	1905.00	26590	0.0	19.0	17.98	1	99	Left	10	96	0.045	1.265	0.057	0.057	0.036		31.4		
Hotspot	LTE Band 25	20	QPSK	A	0039M	1:1	-0.19	1905.00	26590	0.0	19.0	17.94	50	25	Left	10	96	0.050	1.276	0.064	0.064	0.040		31.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-42

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	-0.01	1860.00	26140	0.0	21.0	20.05	1	0	Back	10	0.191	1.245	0.238	0.238	0.149		27.2	22.6	20.0
Body-worn/Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	0.02	1860.00	26140	0.0	21.0	20.04	50	50	Back	10	0.186	1.247	0.232	0.232	0.145		27.3		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	0.03	1860.00	26140	0.0	21.0	20.05	1	0	Front	10	0.220	1.245	0.274	0.274	0.171		26.6		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	-0.01	1860.00	26140	0.0	21.0	20.04	50	50	Front	10	0.217	1.247	0.271	0.271	0.169		26.7		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	0.00	1860.00	26140	0.0	21.0	20.05	1	0	Top	10	0.552	1.245	0.687	0.687	0.429		22.6		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	-0.02	1860.00	26140	0.0	21.0	20.04	50	50	Top	10	0.534	1.247	0.666	0.666	0.416		22.8		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	0.13	1860.00	26140	0.0	21.0	20.05	1	0	Left	10	0.082	1.245	0.102	0.102	0.064		30.9		
Hotspot	LTE Band 25	20	QPSK	F	0426M	1:1	-0.01	1860.00	26140	0.0	21.0	20.04	50	50	Left	10	0.081	1.247	0.101	0.101	0.063		31.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-43

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 10g SAR [W/kg]	Power Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.07	1860.00	26140	0.0	19.0	17.75	1	99	Bottom	0	74	1.470	1.334	1.961	1.961	0.490		20.1		
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.01	1882.50	26365	0.0	19.0	17.57	1	50	Bottom	0	74	1.520	1.390	2.113	2.113	0.528		19.7		
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.03	1905.00	26590	0.0	19.0	17.98	1	99	Bottom	0	74	1.590	1.265	2.011	2.011	0.503		19.9		
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.03	1860.00	26140	0.0	19.0	17.78	50	50	Bottom	0	74	1.420	1.324	1.880	1.880	0.470		20.2	19.7	18.0
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.05	1882.50	26365	0.0	19.0	17.83	50	0	Bottom	0	74	1.490	1.309	1.950	1.950	0.488		20.1		
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.04	1905.00	26590	0.0	19.0	17.94	50	25	Bottom	0	74	1.610	1.276	2.054	2.054	0.514	A35	19.9		
Phablet	LTE Band 25	20	QPSK	A	0039M	1:1	-0.05	1905.00	26590	0.0	19.0	17.92	100	0	Bottom	0	74	1.470	1.282	1.885	1.885	0.471		20.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

12.13 LTE Band 30 Standalone SAR

Table 12-44

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 30	10	QPSK	A	0231M	1:1	-0.15	2310.00	27710	0.0	23.5	22.52	1	25	Right Cheek	0	0.026	1.253	0.033	0.253	0.158		38.4		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	0.02	2310.00	27710	1.0	22.5	21.58	25	12	Right Cheek	0	0.020	1.236	0.025	0.242	0.151		38.6		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	0.07	2310.00	27710	0.0	23.5	22.52	1	25	Right Tilt	0	0.034	1.253	0.043	0.331	0.207		37.2		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	0.04	2310.00	27710	1.0	22.5	21.58	25	12	Right Tilt	0	0.025	1.236	0.031	0.302	0.189		37.6	37.2	32.4
Head	LTE Band 30	10	QPSK	A	0231M	1:1	-0.05	2310.00	27710	0.0	23.5	22.52	1	25	Left Cheek	0	0.024	1.253	0.030	0.233	0.146		38.7		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	-0.13	2310.00	27710	1.0	22.5	21.58	25	12	Left Cheek	0	0.018	1.236	0.022	0.217	0.136		39.0		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	-0.09	2310.00	27710	0.0	23.5	22.52	1	25	Left Tilt	0	0.032	1.253	0.040	0.311	0.194		37.5		
Head	LTE Band 30	10	QPSK	A	0231M	1:1	0.19	2310.00	27710	1.0	22.5	21.58	25	12	Left Tilt	0	0.023	1.236	0.028	0.278	0.174		38.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-45

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.01	2310.00	27710	0.0	19.0	17.61	1	25	Right Cheek	0	0.872	1.377	1.201	1.201	0.751	A36	18.2		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	0.02	2310.00	27710	0.0	19.0	17.45	25	12	Right Cheek	0	0.777	1.429	1.110	1.110	0.694		18.5		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	0.01	2310.00	27710	0.0	19.0	17.35	50	0	Right Cheek	0	0.681	1.462	0.996	0.996	0.623		19.0		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.01	2310.00	27710	0.0	19.0	17.61	1	25	Right Tilt	0	0.770	1.377	1.060	1.060	0.663		18.7		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.02	2310.00	27710	0.0	19.0	17.45	25	12	Right Tilt	0	0.757	1.429	1.082	1.082	0.676		18.7	18.2	18.0
Head	LTE Band 30	10	QPSK	F	0426M	1:1	0.04	2310.00	27710	0.0	19.0	17.35	50	0	Right Tilt	0	0.560	1.462	0.819	0.819	0.512		19.9		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.04	2310.00	27710	0.0	19.0	17.61	1	25	Left Cheek	0	0.464	1.377	0.639	0.639	0.399		20.9		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.05	2310.00	27710	0.0	19.0	17.45	25	12	Left Cheek	0	0.458	1.429	0.654	0.654	0.409		20.8		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	-0.01	2310.00	27710	0.0	19.0	17.61	1	25	Left Tilt	0	0.452	1.377	0.622	0.622	0.389		21.1		
Head	LTE Band 30	10	QPSK	F	0426M	1:1	0.01	2310.00	27710	0.0	19.0	17.45	25	12	Left Tilt	0	0.445	1.429	0.636	0.636	0.398		21.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-46

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	-0.02	2310.00	27710	0.0	20.5	19.53	1	25	Back	10	0.273	1.250	0.341	0.341	0.213		25.2		
Body-worn/Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.04	2310.00	27710	0.0	20.5	19.52	25	12	Back	10	0.276	1.253	0.346	0.346	0.216	A37	25.1		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	-0.02	2310.00	27710	0.0	20.5	19.53	1	25	Front	10	0.306	1.250	0.383	0.383	0.239		24.7		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.00	2310.00	27710	0.0	20.5	19.52	25	12	Front	10	0.298	1.253	0.373	0.373	0.233		24.8		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.00	2310.00	27710	0.0	20.5	19.53	1	25	Bottom	10	0.939	1.250	1.174	1.174	0.734	A38	19.8		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	-0.02	2310.00	27710	0.0	20.5	19.53	1	25	Bottom	10	0.808	1.250	1.010	1.010	0.631		20.5		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.00	2310.00	27710	0.0	20.5	19.52	25	12	Bottom	10	0.928	1.253	1.163	1.163	0.727		19.8	19.8	19.5
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	-0.15	2310.00	27710	0.0	20.5	19.50	50	0	Bottom	10	0.806	1.259	1.015	1.015	0.634		20.4		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	-0.05	2310.00	27710	0.0	20.5	19.53	1	25	Right	10	0.121	1.250	0.151	0.151	0.094		28.7		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.06	2310.00	27710	0.0	20.5	19.52	25	12	Right	10	0.119	1.253	0.149	0.149	0.093		28.8		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.09	2310.00	27710	0.0	20.5	19.53	1	25	Left	10	0.062	1.250	0.078	0.078	0.049		31.6		
Hotspot	LTE Band 30	10	QPSK	A	0231M	1:1	0.00	2310.00	27710	0.0	20.5	19.52	25	12	Left	10	0.061	1.253	0.076	0.076	0.048		31.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-47

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.02	2310.00	27710	0.0	21.0	20.11	1	49	Back	10	0.158	1.227	0.194	0.194	0.121		28.1		
Body-worn/Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.05	2310.00	27710	0.0	21.0	20.05	25	0	Back	10	0.160	1.245	0.199	0.199	0.124		28.0		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	0.01	2310.00	27710	0.0	21.0	20.11	1	49	Front	10	0.186	1.227	0.228	0.228	0.143		27.4		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.02	2310.00	27710	0.0	21.0	20.05	25	0	Front	10	0.191	1.245	0.238	0.238	0.149		27.2		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.05	2310.00	27710	0.0	21.0	20.11	1	49	Top	10	0.466	1.227	0.572	0.572	0.358		23.4		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.04	2310.00	27710	0.0	21.0	20.05	25	0	Top	10	0.485	1.245	0.604	0.604	0.378		23.2		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	0.09	2310.00	27710	0.0	21.0	20.11	1	49	Left	10	0.051	1.227	0.063	0.063	0.039		33.0		
Hotspot	LTE Band 30	10	QPSK	F	0426M	1:1	-0.12	2310.00	27710	0.0	21.0	20.05	25	0	Left	10	0.058	1.245	0.072	0.072	0.045		32.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.14 LTE Band 7 Standalone SAR

Table 12-48

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 7	20	QPSK	B	0321M	1:1	-0.02	2510.00	20850	0.0	24.0	23.12	1	50	Right Cheek	0	0.108	1.225	0.132	0.332	0.208		32.8	32.7	28.0
Head	LTE Band 7	20	QPSK	B	0321M	1:1	-0.05	2510.00	20850	1.0	23.0	22.12	50	25	Right Cheek	0	0.087	1.225	0.107	0.337	0.211		32.7		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	0.09	2510.00	20850	0.0	24.0	23.12	1	50	Right Tilt	0	0.061	1.225	0.075	0.188	0.118		35.3		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	0.10	2510.00	20850	1.0	23.0	22.12	50	25	Right Tilt	0	0.046	1.225	0.056	0.178	0.111		35.5		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	-0.07	2510.00	20850	0.0	24.0	23.12	1	50	Left Cheek	0	0.044	1.225	0.054	0.135	0.084		36.7		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	0.05	2510.00	20850	1.0	23.0	22.12	50	25	Left Cheek	0	0.035	1.225	0.043	0.136	0.085		36.7		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	0.12	2510.00	20850	0.0	24.0	23.12	1	50	Left Tilt	0	0.060	1.225	0.074	0.185	0.116		35.3		
Head	LTE Band 7	20	QPSK	B	0231M	1:1	0.06	2510.00	20850	1.0	23.0	22.12	50	25	Left Tilt	0	0.050	1.225	0.061	0.194	0.121		35.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-49

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.03	2510.00	20850	0.0	17.0	15.41	1	50	Right Cheek	0	0.846	1.442	1.220	1.220	0.763		16.1	16.0	16.0
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2535.00	21100	0.0	17.0	15.37	1	99	Right Cheek	0	0.796	1.455	1.158	1.158	0.724		16.4		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.02	2560.00	21350	0.0	17.0	15.51	1	99	Right Cheek	0	0.798	1.409	1.124	1.124	0.703		16.5		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.03	2510.00	20850	0.0	17.0	15.34	50	50	Right Cheek	0	0.856	1.466	1.255	1.255	0.784		16.0		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.01	2510.00	20850	0.0	17.0	15.34	50	50	Right Cheek	0	0.829	1.466	1.215	1.215	0.759		16.2		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.01	2535.00	21100	0.0	17.0	15.43	50	50	Right Cheek	0	0.832	1.435	1.194	1.194	0.746		16.2		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.05	2560.00	21350	0.0	17.0	15.54	50	25	Right Cheek	0	0.835	1.400	1.169	1.169	0.731		16.3		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.03	2560.00	21350	0.0	17.0	15.50	100	0	Right Cheek	0	0.822	1.413	1.161	1.161	0.726		16.4		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.07	2510.00	20850	0.0	17.0	15.41	1	50	Right Tilt	0	0.843	1.442	1.216	1.216	0.760		16.2		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.02	2535.00	21100	0.0	17.0	15.37	1	99	Right Tilt	0	0.836	1.455	1.216	1.216	0.760		16.1		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	17.0	15.51	1	99	Right Tilt	0	0.836	1.409	1.178	1.178	0.736		16.3		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.01	2510.00	20850	0.0	17.0	15.34	50	50	Right Tilt	0	0.853	1.466	1.250	1.250	0.781		16.0		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.03	2535.00	21100	0.0	17.0	15.43	50	50	Right Tilt	0	0.868	1.435	1.246	1.246	0.779		16.0		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.02	2560.00	21350	0.0	17.0	15.54	50	25	Right Tilt	0	0.873	1.400	1.222	1.222	0.764	A39	16.1		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.05	2560.00	21350	0.0	17.0	15.50	100	0	Right Tilt	0	0.859	1.413	1.214	1.214	0.759		16.2		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.01	2560.00	21350	0.0	17.0	15.51	1	99	Left Cheek	0	0.382	1.409	0.538	0.538	0.336		19.7		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	-0.04	2560.00	21350	0.0	17.0	15.54	50	25	Left Cheek	0	0.453	1.400	0.634	0.634	0.396		19.0		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	17.0	15.51	1	99	Left Tilt	0	0.438	1.409	0.617	0.617	0.386		19.1		
Head	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	17.0	15.54	50	25	Left Tilt	0	0.410	1.400	0.574	0.574	0.359		19.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-50

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	-0.20	2510.00	20850	0.0	20.5	19.93	1	50	Back	10	0.327	1.140	0.373	0.373	0.233	A40	24.8	22.8	19.5
Body-worn/Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	-0.03	2510.00	20850	0.0	20.5	19.94	50	25	Back	10	0.324	1.138	0.369	0.369	0.231		24.8		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	-0.05	2510.00	20850	0.0	20.5	19.93	1	50	Front	10	0.416	1.140	0.474	0.474	0.296		23.7		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	0.01	2510.00	20850	0.0	20.5	19.94	50	25	Front	10	0.411	1.138	0.468	0.468	0.293		23.8		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	0.00	2510.00	20850	0.0	20.5	19.93	1	50	Bottom	10	0.519	1.140	0.592	0.592	0.370		22.8		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	0.02	2510.00	20850	0.0	20.5	19.94	50	25	Bottom	10	0.523	1.138	0.595	0.595	0.372		22.8		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	-0.01	2510.00	20850	0.0	20.5	19.93	1	50	Right	10	0.317	1.140	0.361	0.361	0.226		24.9		
Hotspot	LTE Band 7	20	QPSK	B	0231M	1:1	0.00	2510.00	20850	0.0	20.5	19.94	50	25	Right	10	0.321	1.138	0.365	0.365	0.228		24.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-51

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	0.01	2510.00	20850	0.0	20.5	19.37	1	0	Back	10	0.283	1.297	0.367	0.367	0.229		24.9	21.7	19.5
Body-worn/Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	-0.03	2560.00	21350	0.0	20.5	19.52	50	50	Back	10	0.250	1.253	0.313	0.313	0.196		25.5		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	-0.09	2510.00	20850	0.0	20.5	19.37	1	0	Front	10	0.333	1.297	0.432	0.432	0.270		24.1		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	20.5	19.52	50	50	Front	10	0.329	1.253	0.412	0.412	0.258		24.3		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	-0.03	2510.00	20850	0.0	20.5	19.37	1	0	Top	10	0.587	1.297	0.761	0.761	0.476	A41	21.7		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	20.5	19.52	50	50	Top	10	0.587	1.253	0.736	0.736	0.460		21.8		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	0.01	2510.00	20850	0.0	20.5	19.37	1	0	Left	10	0.057	1.297	0.074	0.074	0.046		31.8		
Hotspot	LTE Band 7	20	QPSK	F	1078M	1:1	0.00	2560.00	21350	0.0	20.5	19.52	50	50	Left	10	0.056	1.253	0.070	0.070	0.044		32.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.15 LTE Band 41 Standalone SAR

Table 12-52

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.02	2680.00	41490	0.0	25.0	24.17	1	50	Right Cheek	0	N/A	0.105	1.211	0.127	0.327	0.204		32.0		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.06	2680.00	41490	0.0	25.0	24.10	1	0	Right Cheek	0	N/A	0.098	1.230	0.121	0.310	0.194		32.2		
Head	LTE Band 41	20	QPSK	B	0148M	1:2.31	0.01	2680.00	41490	0.0	26.7	25.64	1	50	Right Cheek	0	N/A	0.093	1.276	0.119	0.298	0.186		32.3		
Head	LTE Band 41	20	QPSK	B	0148M	1:2.31	-0.08	2680.00	41490	0.0	26.7	25.63	1	0	Right Cheek	0	N/A	0.094	1.279	0.120	0.302	0.189		32.3		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.06	2680.00	41490	1.0	24.0	23.01	50	25	Right Cheek	0	N/A	0.083	1.256	0.104	0.337	0.211		31.8		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.08	2680.00	41490	0.0	25.0	24.17	1	50	Right Tilt	0	N/A	0.055	1.211	0.067	0.171	0.107		34.8		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.01	2680.00	41490	1.0	24.0	23.01	50	25	Right Tilt	0	N/A	0.042	1.256	0.053	0.171	0.107		34.8		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.12	2680.00	41490	0.0	25.0	24.17	1	50	Left Cheek	0	N/A	0.042	1.211	0.051	0.131	0.082		36.0	31.8	27.1
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.04	2680.00	41490	1.0	24.0	23.01	50	25	Left Cheek	0	N/A	0.033	1.256	0.041	0.134	0.084		35.8		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.02	2680.00	41490	0.0	25.0	24.17	1	50	Left Tilt	0	N/A	0.060	1.211	0.073	0.187	0.117		34.4		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.18	2680.00	41490	1.0	24.0	23.01	50	25	Left Tilt	0	N/A	0.046	1.256	0.058	0.187	0.117		34.4		
Head	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.01	2680.00	41490	0.0	25.0	24.09	1	0	Right Cheek	0	ULCA 41C	0.098	1.233	0.121	0.311	0.194		32.2		
		20						2660.20	41292				1	99												
Head	LTE Band 41	20	QPSK	B	0148M	1:2.31	0.02	2680.00	41490	0.0	26.7	25.85	1	0	Right Cheek	0	ULCA 41C	0.096	1.216	0.117	0.293	0.183		32.4		
		20						2660.20	41292				1	99												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Green entry represents HPUE measurement

Table 12-53

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.17	2506.00	39750	0.0	19.5	18.88	1	50	Right Cheek	0	N/A	0.766	1.153	0.883	0.883	0.552		18.1		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2549.50	40185	0.0	19.5	18.59	1	99	Right Cheek	0	N/A	0.661	1.233	0.815	0.815	0.509		18.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.01	2593.00	40620	0.0	19.5	18.87	1	50	Right Cheek	0	N/A	0.701	1.156	0.810	0.810	0.506		18.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.10	2636.50	41055	0.0	19.5	18.88	1	50	Right Cheek	0	N/A	0.702	1.153	0.809	0.809	0.506		18.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.00	2680.00	41490	0.0	19.5	18.90	1	0	Right Cheek	0	N/A	0.740	1.148	0.850	0.850	0.531		18.2		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2506.00	39750	0.0	19.5	18.85	50	25	Right Cheek	0	N/A	0.780	1.161	0.906	0.906	0.566		17.9		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2549.50	40185	0.0	19.5	18.72	50	25	Right Cheek	0	N/A	0.671	1.197	0.803	0.803	0.502		18.5		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.03	2593.00	40620	0.0	19.5	18.89	50	25	Right Cheek	0	N/A	0.673	1.151	0.775	0.775	0.484		18.6		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2636.50	41055	0.0	19.5	18.88	50	25	Right Cheek	0	N/A	0.688	1.153	0.793	0.793	0.496		18.5		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.00	2680.00	41490	0.0	19.5	18.92	50	0	Right Cheek	0	N/A	0.715	1.143	0.817	0.817	0.511		18.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.02	2593.00	40620	0.0	19.5	18.83	100	0	Right Cheek	0	N/A	0.670	1.167	0.782	0.782	0.489		18.6		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.13	2506.00	39750	0.0	19.5	18.88	1	50	Right Tilt	0	N/A	0.855	1.153	0.986	0.986	0.616		17.6		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.09	2549.50	40185	0.0	19.5	18.59	1	99	Right Tilt	0	N/A	0.726	1.233	0.895	0.895	0.559		18.0		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.14	2593.00	40620	0.0	19.5	18.87	1	50	Right Tilt	0	N/A	0.762	1.156	0.881	0.881	0.551		18.1		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.02	2636.50	41055	0.0	19.5	18.88	1	50	Right Tilt	0	N/A	0.851	1.153	0.981	0.981	0.613		17.6		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.01	2680.00	41490	0.0	19.5	18.90	1	0	Right Tilt	0	N/A	0.883	1.148	1.014	1.014	0.634	A42	17.5	17.4	16.5
Head	LTE Band 41	20	QPSK	F	0148M	1:2.31	-0.04	2680.00	41490	0.0	21.1	20.54	1	0	Right Tilt	0	N/A	0.883	1.138	1.005	1.005	0.628		17.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2506.00	39750	0.0	19.5	18.85	50	25	Right Tilt	0	N/A	0.855	1.161	0.993	0.993	0.621		17.5		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.03	2549.50	40185	0.0	19.5	18.72	50	25	Right Tilt	0	N/A	0.752	1.197	0.900	0.900	0.563		18.0		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.03	2593.00	40620	0.0	19.5	18.89	50	25	Right Tilt	0	N/A	0.786	1.151	0.905	0.905	0.566		18.0		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.01	2636.50	41055	0.0	19.5	18.88	50	25	Right Tilt	0	N/A	0.824	1.153	0.950	0.950	0.594		17.7		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2680.00	41490	0.0	19.5	18.92	50	0	Right Tilt	0	N/A	0.880	1.143	1.006	1.006	0.629		17.5		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.06	2593.00	40620	0.0	19.5	18.83	100	0	Right Tilt	0	N/A	0.780	1.167	0.910	0.910	0.569		17.9		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.16	2680.00	41490	0.0	19.5	18.90	1	0	Left Cheek	0	N/A	0.288	1.148	0.331	0.331	0.207		22.3		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.05	2680.00	41490	0.0	19.5	18.92	50	0	Left Cheek	0	N/A	0.281	1.143	0.321	0.321	0.201		22.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2680.00	41490	0.0	19.5	18.90	1	0	Left Tilt	0	N/A	0.368	1.148	0.422	0.422	0.264		21.3		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.00	2680.00	41490	0.0	19.5	18.92	50	0	Left Tilt	0	N/A	0.361	1.143	0.413	0.413	0.258		21.4		
Head	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.04	2680.00	41490	0.0	19.5	18.81	1	0	Right Tilt	0	ULCA 41C	0.866	1.172	1.015	1.015	0.634		17.5		
		20						2660.20	41292				1	99												
Head	LTE Band 41	20	QPSK	F	0148M	1:2.31	-0.02	2680.00	41490	0.0	21.1	20.51	1	0	Right Tilt	0	ULCA 41C	0.833	1.146	0.955	0.955	0.597		17.7		
		20						2660.20	41292				1	99												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Green entry represents HPUE measurement

Table 12-54

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.09	2680.00	41490	0.0	22.5	21.63	1	0	Back	10	N/A	0.425	1.222	0.519	0.519	0.324	A43	23.4		
Body-worn/Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.04	2680.00	41490	0.0	22.5	21.66	50	25	Back	10	N/A	0.408	1.213	0.495	0.495	0.309		23.6		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.14	2680.00	41490	0.0	22.5	21.63	1	0	Front	10	N/A	0.262	1.222	0.320	0.320	0.200		25.5		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.02	2680.00	41490	0.0	22.5	21.66	50	25	Front	10	N/A	0.252	1.213	0.306	0.306	0.191		25.7		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.03	2680.00	41490	0.0	22.5	21.63	1	0	Bottom	10	N/A	0.472	1.222	0.577	0.577	0.361		22.9		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:2.31	0.01	2680.00	41490	0.0	24.1	23.13	1	0	Bottom	10	N/A	0.451	1.250	0.564	0.564	0.353		23.0		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	0.00	2680.00	41490	0.0	22.5	21.66	50	25	Bottom	10	N/A	0.467	1.213	0.566	0.566	0.354		23.0	22.9	19.5
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.02	2680.00	41490	0.0	22.5	21.63	1	0	Right	10	N/A	0.369	1.222	0.451	0.451	0.282		24.0		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.02	2680.00	41490	0.0	22.5	21.66	50	25	Right	10	N/A	0.354	1.213	0.429	0.429	0.268		24.2		
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:1.58	-0.04	2680.00	41490	0.0	22.5	21.49	1	0	Bottom	10	ULCA 41C	0.445	1.262	0.562	0.562	0.351		23.0		
		20						2660.20	41292				1	99												
Hotspot	LTE Band 41	20	QPSK	B	0148M	1:2.31	0.01	2680.00	41490	0.0	24.1	23.20	1	0	Bottom	10	ULCA 41C	0.431	1.23	0.530	0.530	0.331		23.2		
		20						2660.20	41292				1	99												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Green entry represents HPUE measurement

Table 12-55

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.00	2680.00	41490	0.0	22.5	21.44	1	0	Back	10	N/A	0.235	1.276	0.300	0.300	0.188		25.7		
Body-worn/Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.07	2680.00	41490	0.0	22.5	21.43	50	0	Back	10	N/A	0.232	1.279	0.297	0.297	0.186		25.8		
Hopspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.03	2680.00	41490	0.0	22.5	21.44	1	0	Front	10	N/A	0.251	1.276	0.320	0.320	0.200		25.5		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.06	2680.00	41490	0.0	22.5	21.43	50	0	Front	10	N/A	0.245	1.279	0.313	0.313	0.196		25.6		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.03	2506.00	39750	0.0	22.5	21.11	1	50	Top	10	N/A	0.594	1.377	0.818	0.818	0.511	A44	21.4		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2506.00	39750	0.0	22.5	21.04	1	99	Top	10	N/A	0.552	1.400	0.773	0.773	0.483		21.6		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:2.31	0.00	2506.00	39750	0.0	24.1	22.65	1	50	Top	10	N/A	0.571	1.396	0.797	0.797	0.498		21.5		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:2.31	0.01	2506.00	39750	0.0	24.1	22.66	1	99	Top	10	N/A	0.531	1.393	0.740	0.740	0.463		21.8		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.09	2549.50	40185	0.0	22.5	21.25	1	50	Top	10	N/A	0.471	1.334	0.628	0.628	0.393		22.5		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.20	2593.00	40620	0.0	22.5	21.41	1	50	Top	10	N/A	0.481	1.285	0.618	0.618	0.386		22.6		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2636.50	41055	0.0	22.5	21.41	1	50	Top	10	N/A	0.512	1.285	0.658	0.658	0.411		22.3		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.02	2680.00	41490	0.0	22.5	21.44	1	0	Top	10	N/A	0.533	1.276	0.680	0.680	0.425		22.2	21.4	19.5
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2506.00	39750	0.0	22.5	21.15	50	25	Top	10	N/A	0.589	1.365	0.804	0.804	0.503		21.5		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.05	2549.50	40185	0.0	22.5	21.34	50	25	Top	10	N/A	0.479	1.306	0.626	0.626	0.391		22.6		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	-0.01	2593.00	40620	0.0	22.5	21.42	50	25	Top	10	N/A	0.486	1.282	0.623	0.623	0.389		22.6		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.06	2636.50	41055	0.0	22.5	21.37	50	50	Top	10	N/A	0.512	1.297	0.664	0.664	0.415		22.3		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.00	2680.00	41490	0.0	22.5	21.43	50	0	Top	10	N/A	0.542	1.279	0.693	0.693	0.433		22.1		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.01	2593.00	40620	0.0	22.5	21.39	100	0	Top	10	N/A	0.485	1.291	0.626	0.626	0.391		22.5		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.06	2680.00	41490	0.0	22.5	21.44	1	0	Left	10	N/A	0.017	1.276	0.022	0.022	0.014		37.2		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.04	2680.00	41490	0.0	22.5	21.43	50	0	Left	10	N/A	0.019	1.279	0.024	0.024	0.015		36.7		
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:1.58	0.02	2506.00	39750	0.0	22.5	20.95	1	99	Top	10	ULCA 41C	0.544	1.429	0.777	0.777	0.486		21.6		
		20						2525.80	39948				1	0												
Hotspot	LTE Band 41	20	QPSK	F	0148M	1:2.31	0.00	2506.00	39750	0.0	24.1	22.61	1	99	Top	10	ULCA 41C	0.538	1.409	0.758	0.758	0.474		21.7		
		20						2525.80	39948				1	0												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Green entry represents HPUE measurement

12.16 LTE Band 48 Standalone SAR

Table 12-56

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3560.00	55340	0.0	19.5	19.03	1	0	Right Cheek	0	N/A	0.797	1.114	0.888	0.888	0.555		18.0		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.04	3603.30	55773	0.0	19.5	18.79	1	0	Right Cheek	0	N/A	0.743	1.178	0.875	0.875	0.547		18.0		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.05	3646.70	56207	0.0	19.5	18.83	1	99	Right Cheek	0	N/A	0.751	1.167	0.876	0.876	0.548		18.0		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.02	3690.00	56640	0.0	19.5	18.45	1	99	Right Cheek	0	N/A	0.704	1.274	0.897	0.897	0.561		17.9		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3560.00	55340	0.0	19.5	19.05	50	0	Right Cheek	0	N/A	0.816	1.109	0.905	0.905	0.566		17.9		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3603.30	55773	0.0	19.5	18.88	50	0	Right Cheek	0	N/A	0.740	1.153	0.853	0.853	0.533		18.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.03	3646.70	56207	0.0	19.5	18.91	50	25	Right Cheek	0	N/A	0.744	1.146	0.853	0.853	0.533		18.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.02	3690.00	56640	0.0	19.5	18.59	50	0	Right Cheek	0	N/A	0.695	1.233	0.857	0.857	0.536		18.1		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.03	3560.00	55340	0.0	19.5	18.97	100	0	Right Cheek	0	N/A	0.754	1.130	0.852	0.852	0.533		18.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.01	3560.00	55340	0.0	19.5	19.03	1	0	Right Tilt	0	N/A	0.834	1.114	0.929	0.929	0.581		17.8		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.04	3603.30	55773	0.0	19.5	18.79	1	0	Right Tilt	0	N/A	0.871	1.178	1.026	1.026	0.641		17.4		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.06	3646.70	56207	0.0	19.5	18.83	1	99	Right Tilt	0	N/A	0.930	1.167	1.085	1.085	0.678		17.1		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3690.00	56640	0.0	19.5	18.45	1	99	Right Tilt	0	N/A	0.887	1.274	1.130	1.130	0.706		16.9	16.7	16.5
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3560.00	55340	0.0	19.5	19.05	50	0	Right Tilt	0	N/A	0.982	1.109	1.089	1.089	0.681	A45	17.1		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.02	3560.00	55340	0.0	19.5	19.05	50	0	Right Tilt	0	N/A	0.961	1.109	1.066	1.066	0.666		17.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.05	3603.30	55773	0.0	19.5	18.88	50	0	Right Tilt	0	N/A	0.890	1.153	1.026	1.026	0.641		17.4		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.02	3646.70	56207	0.0	19.5	18.91	50	25	Right Tilt	0	N/A	0.953	1.146	1.092	1.092	0.683		17.1		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3690.00	56640	0.0	19.5	18.59	50	0	Right Tilt	0	N/A	0.965	1.233	1.190	1.190	0.744		16.7		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3560.00	55340	0.0	19.5	18.97	100	0	Right Tilt	0	N/A	0.827	1.130	0.935	0.935	0.584		17.8		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3560.00	55340	0.0	19.5	19.03	1	0	Left Cheek	0	N/A	0.301	1.114	0.335	0.335	0.209		22.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3560.00	55340	0.0	19.5	19.05	50	0	Left Cheek	0	N/A	0.300	1.109	0.333	0.333	0.208		22.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3560.00	55340	0.0	19.5	19.03	1	0	Left Tilt	0	N/A	0.376	1.114	0.419	0.419	0.262		21.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.00	3560.00	55340	0.0	19.5	19.05	50	0	Left Tilt	0	N/A	0.384	1.109	0.426	0.426	0.266		21.2		
Head	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3690.00	56640	0.0	19.5	18.44	50	0	Right Tilt	0	ULCA 48C	0.894	1.276	1.141	1.141	0.713		16.9		
		20						3670.20	56442				50	50												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Blue entry represents variability measurement

Table 12-57

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Add'l Info	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.05	3560.00	55340	0.0	23.0	22.08	1	0	Back	10	N/A	0.254	1.236	0.314	0.314	0.196	A46	26.0		
Body-worn/Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.08	3560.00	55340	0.5	22.5	21.61	50	0	Back	10	N/A	0.200	1.227	0.245	0.245	0.153		26.6		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.05	3560.00	55340	0.0	23.0	22.08	1	0	Front	10	N/A	0.151	1.236	0.187	0.187	0.117		28.3		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.01	3560.00	55340	0.5	22.5	21.61	50	0	Front	10	N/A	0.122	1.227	0.150	0.150	0.094		28.7		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.02	3560.00	55340	0.0	23.0	22.08	1	0	Top	10	N/A	0.351	1.236	0.434	0.434	0.271	A47	24.6		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.09	3560.00	55340	0.0	23.0	21.99	1	99	Top	10	N/A	0.345	1.262	0.435	0.435	0.272		24.6	24.3	20.0
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.01	3560.00	55340	0.5	22.5	21.61	50	0	Top	10	N/A	0.274	1.227	0.336	0.336	0.210		25.2		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.06	3560.00	55340	0.0	23.0	22.08	1	0	Left	10	N/A	0.054	1.236	0.067	0.067	0.042		32.7		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	-0.13	3560.00	55340	0.5	22.5	21.61	50	0	Left	10	N/A	0.044	1.227	0.054	0.054	0.034		33.1		
Hotspot	LTE Band 48	20	QPSK	F	1154M	1:1.58	0.03	3560.00	55340	0.0	23.0	21.70	1	99	Top	10	ULCA 48C	0.344	1.349	0.464	0.464	0.290		24.3		
		20						3579.80	55538				1	0												
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

12.17 NR Band n71 Standalone SAR

Table 12-58

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n71	20	QPSK	A	0174M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Right Cheek	0	132	0.117	1.230	0.144	0.301	0.188		33.4		
Head	NR Band n71	20	QPSK	A	0174M	1:1	-0.02	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Right Cheek	0	132	0.109	1.247	0.136	0.284	0.178		33.7		
Head	NR Band n71	20	QPSK	A	0174M	1:1	0.08	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Right Tilt	0	132	0.059	1.230	0.073	0.152	0.095		36.4		
Head	NR Band n71	20	QPSK	A	0174M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Right Tilt	0	132	0.056	1.247	0.070	0.146	0.091		36.6		
Head	NR Band n71	20	QPSK	A	0174M	1:1	0.08	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Left Cheek	0	128	0.131	1.230	0.161	0.337	0.211		32.9	32.9	28.2
Head	NR Band n71	20	QPSK	A	0174M	1:1	0.05	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Left Cheek	0	128	0.102	1.247	0.127	0.266	0.166		34.0		
Head	NR Band n71	20	QPSK	A	0174M	1:1	-0.14	680.50	136100	CP-OFDM	1.5	23.5	22.39	1	1	Left Cheek	0	128	0.065	1.291	0.084	0.248	0.155		34.3		
Head	NR Band n71	20	QPSK	A	0174M	1:1	-0.11	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Left Tilt	0	65	0.058	1.230	0.071	0.149	0.093		36.5		
Head	NR Band n71	20	QPSK	A	0174M	1:1	-0.11	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Left Tilt	0	65	0.044	1.247	0.055	0.115	0.072		37.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-59

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	23.0	22.58	1	53	Right Cheek	0	0.481	1.102	0.530	0.530	0.331		25.8		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	23.0	22.54	50	28	Right Cheek	0	0.497	1.112	0.553	0.553	0.346		25.6		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	23.0	22.58	1	53	Right Tilt	0	0.412	1.102	0.454	0.454	0.284		26.4		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	23.0	22.54	50	28	Right Tilt	0	0.423	1.112	0.470	0.470	0.294		26.3		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.02	680.50	136100	DFT-s-OFDM	0.0	23.0	22.58	1	53	Left Cheek	0	0.631	1.102	0.695	0.695	0.434		24.6	24.0	22.0
Head	NR Band n71	20	QPSK	E	0084M	1:1	-0.06	680.50	136100	DFT-s-OFDM	0.0	23.0	22.54	50	28	Left Cheek	0	0.686	1.112	0.763	0.763	0.477	A48	24.2		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.03	680.50	136100	CP-OFDM	0.0	23.0	22.32	1	1	Left Cheek	0	0.673	1.169	0.787	0.787	0.492		24.0		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	23.0	22.58	1	53	Left Tilt	0	0.573	1.102	0.631	0.631	0.394		25.0		
Head	NR Band n71	20	QPSK	E	0084M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	23.0	22.54	50	28	Left Tilt	0	0.533	1.112	0.593	0.593	0.371		25.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-60

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.03	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Back	10	134	0.226	1.230	0.278	0.431	0.269		30.6		
Body-worn/Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.05	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Back	10	132	0.253	1.247	0.315	0.489	0.306		30.0		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.05	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Front	10	134	0.194	1.230	0.239	0.370	0.231		31.2		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.03	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Front	10	132	0.191	1.247	0.238	0.369	0.231		31.2		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.10	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Bottom	10	134	0.066	1.230	0.081	0.126	0.079		35.9		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	-0.12	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Bottom	10	0	0.059	1.247	0.074	0.114	0.071		36.3	29.9	26.9
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	-0.01	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Right	10	134	0.261	1.230	0.321	0.497	0.311		29.9		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Right	10	67	0.255	1.247	0.318	0.493	0.308		30.0		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.05	680.50	136100	CP-OFDM	1.5	23.5	22.39	1	1	Right	10	132	0.166	1.291	0.214	0.469	0.293		30.2		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	-0.01	680.50	136100	DFT-s-OFDM	0.0	25.0	24.10	1	104	Left	10	134	0.140	1.230	0.172	0.267	0.167		32.6		
Hotspot	NR Band n71	20	QPSK	A	0174M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	25.0	24.04	50	28	Left	10	132	0.126	1.247	0.157	0.243	0.152		33.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-61

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	-0.06	680.50	136100	DFT-s-OFDM	0.0	24.5	23.43	1	53	Back	10	0.286	1.279	0.366	0.440	0.275		28.9		
Body-worn/Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	-0.03	680.50	136100	DFT-s-OFDM	0.0	24.5	23.35	50	28	Back	10	0.288	1.303	0.375	0.451	0.282	A49	28.8		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	-0.03	680.50	136100	DFT-s-OFDM	0.0	24.5	23.43	1	53	Front	10	0.294	1.279	0.376	0.452	0.283		28.7		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	-0.02	680.50	136100	DFT-s-OFDM	0.0	24.5	23.35	50	28	Front	10	0.300	1.303	0.391	0.470	0.294		28.6		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	0.01	680.50	136100	DFT-s-OFDM	0.0	24.5	23.43	1	53	Top	10	0.330	1.279	0.422	0.508	0.318		28.2	27.2	25.3
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	0.02	680.50	136100	DFT-s-OFDM	0.0	24.5	23.35	50	28	Top	10	0.338	1.303	0.440	0.530	0.331		28.1		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	0.00	680.50	136100	DFT-s-OFDM	0.0	24.5	23.43	1	53	Right	10	0.369	1.279	0.472	0.568	0.355		27.8		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	-0.05	680.50	136100	DFT-s-OFDM	0.0	24.5	23.35	50	28	Right	10	0.374	1.303	0.487	0.586	0.366	A50	27.6		
Hotspot	NR Band n71	20	QPSK	E	0084M	1:1	0.02	680.50	136100	CP-OFDM	1.5	23.0	21.64	1	1	Right	10	0.275	1.368	0.376	0.639	0.399		27.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.18 NR Band n12 Standalone SAR

Table 12-62

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.03	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Right Cheek	0	65	0.124	1.233	0.153	0.285	0.178		33.5		
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Right Cheek	0	65	0.116	1.253	0.145	0.271	0.169		33.7		
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.04	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Right Tilt	0	65	0.076	1.233	0.094	0.174	0.109		35.6		
Head	NR Band n12	15	QPSK	A	0174M	1:1	0.04	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Right Tilt	0	65	0.072	1.253	0.090	0.168	0.105		35.7		
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.12	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Left Cheek	0	65	0.143	1.233	0.176	0.328	0.205		32.8	32.8	28.0
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Left Cheek	0	65	0.125	1.253	0.157	0.292	0.183		33.4		
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.08	707.50	141500	CP-OFDM	1.5	23.8	23.01	1	1	Left Cheek	0	134	0.100	1.199	0.120	0.316	0.198		33.0		
Head	NR Band n12	15	QPSK	A	0174M	1:1	-0.15	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Left Tilt	0	65	0.069	1.233	0.085	0.158	0.099		36.0		
Head	NR Band n12	15	QPSK	A	0174M	1:1	0.02	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Left Tilt	0	65	0.065	1.253	0.081	0.152	0.095		36.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-63

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n12	15	QPSK	E	1428M	1:1	-0.01	707.50	141500	DFT-s-OFDM	0.0	22.0	21.34	1	77	Right Cheek	0	0.491	1.164	0.572	0.572	0.358		24.4		
Head	NR Band n12	15	QPSK	E	1428M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	22.0	21.37	36	43	Right Cheek	0	0.518	1.156	0.599	0.599	0.374		24.2		
Head	NR Band n12	15	QPSK	E	1428M	1:1	-0.03	707.50	141500	DFT-s-OFDM	0.0	22.0	21.34	1	77	Right Tilt	0	0.398	1.164	0.463	0.463	0.289		25.3		
Head	NR Band n12	15	QPSK	E	1428M	1:1	0.00	707.50	141500	DFT-s-OFDM	0.0	22.0	21.37	36	43	Right Tilt	0	0.418	1.156	0.483	0.483	0.302		25.2		
Head	NR Band n12	15	QPSK	E	1428M	1:1	0.00	707.50	141500	DFT-s-OFDM	0.0	22.0	21.34	1	77	Left Cheek	0	0.616	1.164	0.717	0.717	0.448		23.4	22.9	21.0
Head	NR Band n12	15	QPSK	E	1428M	1:1	0.02	707.50	141500	DFT-s-OFDM	0.0	22.0	21.37	36	43	Left Cheek	0	0.655	1.156	0.757	0.757	0.473		23.2		
Head	NR Band n12	15	QPSK	E	1428M	1:1	0.01	707.50	141500	CP-OFDM	0.0	22.0	21.41	1	1	Left Cheek	0	0.704	1.146	0.807	0.807	0.504	AS1	22.9		
Head	NR Band n12	15	QPSK	E	1428M	1:1	-0.04	707.50	141500	DFT-s-OFDM	0.0	22.0	21.34	1	77	Left Tilt	0	0.559	1.164	0.651	0.651	0.407		23.9		
Head	NR Band n12	15	QPSK	E	1428M	1:1	-0.01	707.50	141500	DFT-s-OFDM	0.0	22.0	21.37	36	43	Left Tilt	0	0.577	1.156	0.667	0.667	0.417		23.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-64

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	0.01	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Back	10	134	0.310	1.233	0.382	0.552	0.345		29.5		
Body-worn/Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	0.03	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Back	10	134	0.335	1.253	0.420	0.607	0.379	AS2	29.1		
Body-worn/Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.04	707.50	141500	CP-OFDM	1.5	23.8	23.01	1	1	Back	10	134	0.220	1.199	0.264	0.539	0.337		29.6		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.01	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Front	10	134	0.182	1.233	0.224	0.324	0.203		31.8		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Front	10	134	0.187	1.253	0.234	0.339	0.212		31.6		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	0.03	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Bottom	10	65	0.060	1.233	0.074	0.107	0.067		36.6	29.1	26.9
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.03	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Bottom	10	65	0.054	1.253	0.068	0.098	0.061		37.0		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.07	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Right	10	134	0.226	1.233	0.279	0.403	0.252		30.8		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.01	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Right	10	134	0.218	1.253	0.273	0.395	0.247		30.9		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	0.11	707.50	141500	DFT-s-OFDM	0.0	25.3	24.39	1	1	Left	10	134	0.210	1.233	0.259	0.374	0.234		31.2		
Hotspot	NR Band n12	15	QPSK	A	0174M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	25.3	24.32	36	22	Left	10	134	0.194	1.253	0.243	0.351	0.219		31.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-65

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.04	707.50	141500	DFT-s-OFDM	0.0	24.8	23.85	1	77	Back	10	0.283	1.245	0.352	0.454	0.284		29.3		
Body-worn/Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	0.00	707.50	141500	DFT-s-OFDM	0.0	24.8	23.86	36	22	Back	10	0.281	1.242	0.349	0.450	0.281		29.4		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.02	707.50	141500	DFT-s-OFDM	0.0	24.8	23.85	1	77	Front	10	0.339	1.245	0.422	0.543	0.339		28.5		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.11	707.50	141500	DFT-s-OFDM	0.0	24.8	23.86	36	22	Front	10	0.356	1.242	0.442	0.570	0.356		28.3		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.16	707.50	141500	DFT-s-OFDM	0.0	24.8	23.85	1	77	Top	10	0.408	1.245	0.508	0.654	0.409	AS3	27.7	27.7	25.9
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	0.03	707.50	141500	DFT-s-OFDM	0.0	24.8	23.86	36	22	Top	10	0.396	1.242	0.492	0.634	0.396		27.9		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.10	707.50	141500	CP-OFDM	1.5	23.3	22.36	1	1	Top	10	0.289	1.242	0.359	0.653	0.408		27.8		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.01	707.50	141500	DFT-s-OFDM	0.0	24.8	23.85	1	77	Right	10	0.315	1.245	0.392	0.505	0.316		28.9		
Hotspot	NR Band n12	15	QPSK	E	0221M	1:1	-0.03	707.50	141500	DFT-s-OFDM	0.0	24.8	23.86	36	22	Right	10	0.296	1.242	0.368	0.474	0.296		29.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.19 NR Band n26 Standalone SAR

Table 12-66

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.16	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Right Cheek	0	140	0.066	1.253	0.083	0.244	0.153		35.8		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.12	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Right Cheek	0	140	0.063	1.279	0.081	0.238	0.149		35.9		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.14	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Right Tilt	0	140	0.045	1.253	0.056	0.166	0.104		37.5		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.19	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Right Tilt	0	140	0.045	1.279	0.058	0.170	0.106		37.4		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.09	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Left Cheek	0	140	0.091	1.253	0.114	0.337	0.211		34.4	34.4	29.7
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.08	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Left Cheek	0	140	0.090	1.279	0.115	0.340	0.213		34.4		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.16	831.50	166300	CP-OFDM	1.5	23.5	22.50	1	1	Left Cheek	0	140	0.064	1.259	0.081	0.336	0.210		34.4		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.02	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Left Tilt	0	140	0.035	1.253	0.044	0.129	0.081		38.6		
Head	NR Band n26	20	QPSK	A	0221M	1:1	0.03	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Left Tilt	0	140	0.034	1.279	0.043	0.128	0.080		38.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-67

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.01	831.50	166300	DFT-s-OFDM	0.0	22.0	20.55	1	53	Right Cheek	0	0.480	1.396	0.670	0.670	0.419		23.7		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.01	831.50	166300	DFT-s-OFDM	0.0	22.0	20.52	50	28	Right Cheek	0	0.479	1.406	0.673	0.673	0.421		23.7		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.04	831.50	166300	DFT-s-OFDM	0.0	22.0	20.55	1	53	Right Tilt	0	0.423	1.396	0.591	0.591	0.369		24.3		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.01	831.50	166300	DFT-s-OFDM	0.0	22.0	20.52	50	28	Right Tilt	0	0.427	1.406	0.600	0.600	0.375		24.2		
Head	NR Band n26	20	QPSK	E	0084M	1:1	-0.03	831.50	166300	DFT-s-OFDM	0.0	22.0	20.55	1	53	Left Cheek	0	0.690	1.396	0.963	0.963	0.602		22.2		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.00	831.50	166300	DFT-s-OFDM	0.0	22.0	20.52	50	28	Left Cheek	0	0.696	1.406	0.979	0.979	0.612		22.1	22.1	21.0
Head	NR Band n26	20	QPSK	E	0084M	1:1	-0.17	831.50	166300	DFT-s-OFDM	0.0	22.0	20.50	100	0	Left Cheek	0	0.689	1.413	0.974	0.974	0.609		22.1		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.00	831.50	166300	CP-OFDM	0.0	22.0	20.61	1	1	Left Cheek	0	0.715	1.377	0.985	0.985	0.616	A54	22.1		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.07	831.50	166300	DFT-s-OFDM	0.0	22.0	20.55	1	53	Left Tilt	0	0.629	1.396	0.878	0.878	0.549		22.6		
Head	NR Band n26	20	QPSK	E	0084M	1:1	0.00	831.50	166300	DFT-s-OFDM	0.0	22.0	20.52	50	28	Left Tilt	0	0.648	1.406	0.911	0.911	0.569		22.4		
Head	NR Band n26	20	QPSK	E	0084M	1:1	-0.11	831.50	166300	DFT-s-OFDM	0.0	22.0	20.50	100	0	Left Tilt	0	0.626	1.413	0.885	0.885	0.553		22.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-68

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-Worn/Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.02	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Back	10	140	0.443	1.253	0.555	0.581	0.363		27.6		
Body-Worn/Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	-0.01	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Back	10	140	0.449	1.279	0.574	0.602	0.376	A55	27.4		
Body-Worn/Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	-0.01	831.50	166300	CP-OFDM	1.5	23.5	22.50	1	1	Back	10	132	0.322	1.259	0.405	0.600	0.375		27.4		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.08	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Front	10	140	0.208	1.253	0.261	0.273	0.171		30.8		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	-0.03	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Front	10	140	0.209	1.279	0.267	0.280	0.175		30.7		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.04	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Bottom	10	140	0.119	1.253	0.149	0.156	0.098		33.3		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	-0.02	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Bottom	10	140	0.119	1.279	0.152	0.159	0.099		33.2		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.12	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Right	10	132	0.043	1.253	0.054	0.056	0.035		37.7	27.4	25.2
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.09	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Right	10	132	0.040	1.279	0.051	0.054	0.034		37.9		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	0.03	831.50	166300	DFT-s-OFDM	0.0	25.0	24.02	1	53	Left	10	140	0.109	1.253	0.137	0.143	0.089		33.6		
Hotspot	NR Band n26	20	QPSK	A	0221M	1:1	-0.05	831.50	166300	DFT-s-OFDM	0.0	25.0	23.93	50	28	Left	10	140	0.119	1.279	0.152	0.159	0.099		33.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-69

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	0.01	831.50	166300	DFT-s-OFDM	0.0	24.5	23.29	1	53	Back	10	0.253	1.321	0.334	0.461	0.288		29.3		
Body-worn/Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.14	831.50	166300	DFT-s-OFDM	0.0	24.5	23.18	50	28	Back	10	0.314	1.355	0.425	0.587	0.367		28.2		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.01	831.50	166300	DFT-s-OFDM	0.0	24.5	23.29	1	53	Front	10	0.424	1.321	0.560	0.773	0.483		27.0		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.05	831.50	166300	DFT-s-OFDM	0.0	24.5	23.18	50	28	Front	10	0.425	1.355	0.576	0.795	0.497		26.9		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.15	831.50	166300	DFT-s-OFDM	0.0	24.5	23.29	1	53	Top	10	0.448	1.321	0.592	0.817	0.511		26.8	26.7	25.9
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.02	831.50	166300	DFT-s-OFDM	0.0	24.5	23.18	50	28	Top	10	0.445	1.355	0.603	0.833	0.521		26.7		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.04	831.50	166300	CP-OFDM	1.5	23.0	21.80	1	1	Top	10	0.300	1.318	0.395	0.771	0.482		27.0		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	-0.01	831.50	166300	DFT-s-OFDM	0.0	24.5	23.29	1	53	Right	10	0.334	1.321	0.441	0.609	0.381		28.1		
Hotspot	NR Band n26	20	QPSK	E	0221M	1:1	0.05	831.50	166300	DFT-s-OFDM	0.0	24.5	23.18	50	28	Right	10	0.335	1.355	0.454	0.627	0.392		27.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.20 NR Band n70 Standalone SAR

Table 12-70

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.05	1702.50	340500	DFT-s-OFDM	0.0	24.0	23.09	1	1	Right Cheek	0	32	0.033	1.233	0.041	0.302	0.189		37.9		
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.08	1702.50	340500	DFT-s-OFDM	0.0	24.0	22.92	36	22	Right Cheek	0	32	0.035	1.282	0.045	0.333	0.208		37.5		
Head	NR Band n70	15	QPSK	A	0256M	1:1	-0.19	1702.50	340500	CP-OFDM	1.5	22.5	21.69	1	1	Right Cheek	0	32	0.022	1.205	0.027	0.278	0.174		38.3		
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.07	1702.50	340500	DFT-s-OFDM	0.0	24.0	23.09	1	1	Right Tilt	0	32	0.021	1.233	0.026	0.192	0.120		39.9		
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.11	1702.50	340500	DFT-s-OFDM	0.0	24.0	22.92	36	22	Right Tilt	0	32	0.022	1.282	0.028	0.209	0.131		39.5	37.5	32.7
Head	NR Band n70	15	QPSK	A	0256M	1:1	-0.03	1702.50	340500	DFT-s-OFDM	0.0	24.0	23.09	1	1	Left Cheek	0	32	0.026	1.233	0.032	0.238	0.149		38.9		
Head	NR Band n70	15	QPSK	A	0256M	1:1	-0.02	1702.50	340500	DFT-s-OFDM	0.0	24.0	22.92	36	22	Left Cheek	0	32	0.030	1.282	0.038	0.285	0.178		38.1		
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.16	1702.50	340500	DFT-s-OFDM	0.0	24.0	23.09	1	1	Left Tilt	0	32	0.019	1.233	0.023	0.174	0.109		40.3		
Head	NR Band n70	15	QPSK	A	0256M	1:1	0.07	1702.50	340500	DFT-s-OFDM	0.0	24.0	22.92	36	22	Left Tilt	0	32	0.022	1.282	0.028	0.209	0.131		39.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-71

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n70	15	QPSK	F	0126M	1:1	-0.02	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.79	1	77	Right Cheek	0	0.714	1.321	0.943	0.943	0.589		20.3		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.68	36	43	Right Cheek	0	0.745	1.355	1.009	1.009	0.631		20.0		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.53	75	0	Right Cheek	0	0.766	1.403	1.075	1.075	0.672		19.7		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.79	1	77	Right Tilt	0	0.854	1.321	1.128	1.128	0.705		19.5		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.06	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.68	36	43	Right Tilt	0	0.862	1.355	1.168	1.168	0.730		19.3		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.53	75	0	Right Tilt	0	0.866	1.403	1.215	1.215	0.759	AS6	19.2	19.2	19.0
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.01	1702.50	340500	CP-OFDM	0.0	20.0	18.55	1	1	Right Tilt	0	0.829	1.396	1.157	1.157	0.723		19.4		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.08	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.79	1	77	Left Cheek	0	0.435	1.321	0.575	0.575	0.359		22.4		
Head	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.68	36	43	Left Cheek	0	0.436	1.355	0.591	0.591	0.369		22.3		
Head	NR Band n70	15	QPSK	F	0126M	1:1	-0.08	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.79	1	77	Left Tilt	0	0.586	1.321	0.774	0.774	0.484		21.1		
Head	NR Band n70	15	QPSK	F	0126M	1:1	-0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.68	36	43	Left Tilt	0	0.590	1.355	0.799	0.799	0.499		21.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-72

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.77	1	1	Back	10	32	0.424	1.327	0.563	0.563	0.352	AS7	22.5		
Body-worn/Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.07	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.76	36	22	Back	10	32	0.424	1.330	0.564	0.564	0.353		22.5		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.15	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.77	1	1	Front	10	32	0.414	1.327	0.549	0.549	0.343		22.6		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.05	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.76	36	22	Front	10	32	0.418	1.330	0.556	0.556	0.348		22.5		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	0.03	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.77	1	1	Bottom	10	32	0.845	1.327	1.121	1.121	0.701		19.5		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	0.07	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.76	36	22	Bottom	10	32	0.865	1.330	1.150	1.150	0.719		19.4	19.3	19.0
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	0.07	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.75	75	0	Bottom	10	32	0.869	1.334	1.159	1.159	0.724		19.4		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.04	1702.50	340500	CP-OFDM	0.0	20.0	18.74	1	1	Bottom	10	32	0.878	1.337	1.174	1.174	0.734	AS8	19.3		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	0.04	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.77	1	1	Right	10	32	0.053	1.327	0.070	0.070	0.044		31.5		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.07	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.76	36	22	Right	10	32	0.052	1.330	0.069	0.069	0.043		31.6		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.16	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.77	1	1	Left	10	32	0.066	1.327	0.088	0.088	0.055		30.6		
Hotspot	NR Band n70	15	QPSK	A	0256M	1:1	-0.16	1702.50	340500	DFT-s-OFDM	0.0	20.0	18.76	36	22	Left	10	32	0.063	1.330	0.084	0.084	0.053		30.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-73

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	-0.02	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.64	1	77	Back	10	0.233	1.535	0.358	0.358	0.224		27.0		
Body-worn/Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	-0.06	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.73	36	43	Back	10	0.235	1.503	0.353	0.353	0.221		27.0		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.03	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.64	1	77	Front	10	0.213	1.535	0.327	0.327	0.204		27.4		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	-0.02	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.73	36	43	Front	10	0.238	1.503	0.358	0.358	0.224		27.0		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.64	1	77	Top	10	0.515	1.535	0.791	0.791	0.494		23.5	23.3	21.5
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.73	36	43	Top	10	0.534	1.503	0.803	0.803	0.502		23.5		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.59	75	0	Top	10	0.537	1.552	0.833	0.833	0.521		23.3		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	CP-OFDM	0.0	22.5	20.89	1	1	Top	10	0.561	1.449	0.813	0.813	0.508		23.4		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	-0.02	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.64	1	77	Left	10	0.091	1.535	0.140	0.140	0.088		31.0		
Hotspot	NR Band n70	15	QPSK	F	0126M	1:1	0.00	1702.50	340500	DFT-s-OFDM	0.0	22.5	20.73	36	43	Left	10	0.090	1.503	0.135	0.135	0.084		31.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.21 NR Band n66 Standalone SAR

Table 12-74

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n66	40	QPSK	A	0236M	1:1	-0.11	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.99	1	108	Right Cheek	0	32	0.100	1.125	0.113	0.252	0.158		34.0		
Head	NR Band n66	40	QPSK	A	0236M	1:1	0.02	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.95	108	54	Right Cheek	0	32	0.110	1.135	0.125	0.280	0.175		33.5		
Head	NR Band n66	40	QPSK	A	0236M	1:1	0.19	1745.00	349000	CP-OFDM	1.5	23.0	22.16	1	1	Right Cheek	0	32	0.087	1.213	0.106	0.334	0.209		32.8		
Head	NR Band n66	40	QPSK	A	0236M	1:1	-0.14	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.99	1	108	Right Tilt	0	32	0.068	1.125	0.077	0.171	0.107		35.7		
Head	NR Band n66	40	QPSK	A	0236M	1:1	0.01	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.95	108	54	Right Tilt	0	32	0.078	1.135	0.089	0.198	0.124		35.0	32.8	28.0
Head	NR Band n66	40	QPSK	A	0236M	1:1	-0.01	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.99	1	108	Left Cheek	0	32	0.079	1.125	0.089	0.199	0.124		35.0		
Head	NR Band n66	40	QPSK	A	0236M	1:1	-0.08	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.95	108	54	Left Cheek	0	32	0.072	1.135	0.082	0.183	0.114		35.4		
Head	NR Band n66	40	QPSK	A	0236M	1:1	-0.14	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.99	1	108	Left Tilt	0	32	0.082	1.125	0.092	0.206	0.129		34.9		
Head	NR Band n66	40	QPSK	A	0236M	1:1	0.03	1745.00	349000	DFT-s-OFDM	0.0	24.5	23.95	108	54	Left Tilt	0	32	0.080	1.135	0.091	0.203	0.127		34.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-75

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.00	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.92	1	214	Right Cheek	0	0.840	1.143	0.960	0.960	0.600		19.7		
Head	NR Band n66	40	QPSK	F	1160M	1:1	-0.04	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.88	108	0	Right Cheek	0	0.814	1.153	0.939	0.939	0.587		19.8		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.02	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.74	216	0	Right Cheek	0	0.831	1.191	0.990	0.990	0.619		19.5		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.05	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.92	1	214	Right Tilt	0	0.900	1.143	1.029	1.029	0.643		19.4		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.04	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.88	108	0	Right Tilt	0	0.863	1.153	0.995	0.995	0.622		19.5		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.02	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.74	216	0	Right Tilt	0	0.839	1.191	0.999	0.999	0.624		19.5	19.4	18.5
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.03	1745.00	349000	CP-OFDM	0.0	19.5	19.02	1	1	Right Tilt	0	0.903	1.117	1.009	1.009	0.631	A59	19.5		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.00	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.92	1	214	Left Cheek	0	0.550	1.143	0.629	0.629	0.393		21.5		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.02	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.88	108	0	Left Cheek	0	0.531	1.153	0.612	0.612	0.383		21.6		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.05	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.92	1	214	Left Tilt	0	0.643	1.143	0.735	0.735	0.459		20.8		
Head	NR Band n66	40	QPSK	F	1160M	1:1	0.01	1745.00	349000	DFT-s-OFDM	0.0	19.5	18.88	108	0	Left Tilt	0	0.645	1.153	0.744	0.744	0.465		20.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-76

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	0.01	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.31	1	108	Back	10	32	0.522	1.045	0.545	0.545	0.341	A60	22.1		
Body-worn/Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	-0.07	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.30	108	108	Back	10	32	0.490	1.047	0.513	0.513	0.321		22.4		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	-0.01	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.31	1	108	Front	10	32	0.445	1.045	0.465	0.465	0.291		22.8		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	-0.02	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.30	108	108	Front	10	32	0.466	1.047	0.488	0.488	0.305		22.6		
Hotspot	NR Band n66	40	QPSK	A	0152M	1:1	0.04	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.31	1	108	Bottom	10	32	0.895	1.045	0.935	0.935	0.584		19.8		
Hotspot	NR Band n66	40	QPSK	A	0152M	1:1	-0.01	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.30	108	108	Bottom	10	32	0.903	1.047	0.945	0.945	0.591		19.7	19.3	18.5
Hotspot	NR Band n66	40	QPSK	A	0152M	1:1	-0.04	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.22	216	0	Bottom	10	32	0.888	1.067	0.947	0.947	0.592		19.7		
Hotspot	NR Band n66	40	QPSK	A	0152M	1:1	-0.02	1745.00	349000	CP-OFDM	0.0	19.5	19.13	1	1	Bottom	10	32	0.972	1.089	1.059	1.059	0.662	A61	19.3		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	0.09	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.31	1	108	Right	10	32	0.072	1.045	0.075	0.075	0.047		30.7		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	0.01	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.30	108	108	Right	10	32	0.060	1.047	0.063	0.063	0.039		31.5		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	0.00	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.31	1	108	Left	10	32	0.074	1.045	0.077	0.077	0.048		30.6		
Hotspot	NR Band n66	40	QPSK	A	0236M	1:1	-0.12	1745.00	349000	DFT-s-OFDM	0.0	19.5	19.30	108	108	Left	10	32	0.073	1.047	0.076	0.076	0.048		30.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-77

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.01	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.93	1	214	Back	10	0.234	1.140	0.267	0.267	0.167		27.2		
Body-worn/Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	0.04	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.87	108	0	Back	10	0.216	1.156	0.250	0.250	0.156		27.5		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.12	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.93	1	214	Front	10	0.199	1.140	0.227	0.227	0.142		27.9		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.07	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.87	108	0	Front	10	0.174	1.156	0.201	0.201	0.126		28.5		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.02	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.93	1	214	Top	10	0.549	1.140	0.626	0.626	0.391		23.5	23.5	20.5
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.03	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.87	108	0	Top	10	0.510	1.156	0.590	0.590	0.369		23.8		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	0.09	1745.00	349000	CP-OFDM	0.0	21.5	20.91	1	1	Top	10	0.540	1.146	0.619	0.619	0.387		23.6		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.06	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.93	1	214	Left	10	0.109	1.140	0.124	0.124	0.078		30.6		
Hotspot	NR Band n66	40	QPSK	F	1160M	1:1	-0.01	1745.00	349000	DFT-s-OFDM	0.0	21.5	20.87	108	0	Left	10	0.098	1.156	0.113	0.113	0.071		31.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Body 1.6 W/kg (mW/g) averaged over 1 gram								

12.22 NR Band n25 Standalone SAR

Table 12-78

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.13	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.99	1	1	Right Cheek	0	33	0.123	1.125	0.138	0.264	0.165		33.1		
Head	NR Band n25	40	QPSK	A	0236M	1:1	-0.04	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.85	108	54	Right Cheek	0	33	0.143	1.161	0.166	0.316	0.198		32.3		
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.08	1882.50	376500	CP-OFDM	1.5	23.0	22.08	1	1	Right Cheek	0	33	0.099	1.236	0.122	0.329	0.206		32.1		
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.11	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.99	1	1	Right Tilt	0	33	0.060	1.125	0.068	0.129	0.081		36.2		
Head	NR Band n25	40	QPSK	A	0236M	1:1	-0.11	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.85	108	54	Right Tilt	0	33	0.064	1.161	0.074	0.142	0.089		35.8	32.1	27.3
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.03	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.99	1	1	Left Cheek	0	33	0.097	1.125	0.109	0.208	0.130		34.1		
Head	NR Band n25	40	QPSK	A	0236M	1:1	-0.01	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.85	108	54	Left Cheek	0	33	0.083	1.161	0.096	0.184	0.115		34.7		
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.02	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.99	1	1	Left Tilt	0	33	0.131	1.125	0.147	0.281	0.176		32.8		
Head	NR Band n25	40	QPSK	A	0236M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	24.5	23.85	108	54	Left Tilt	0	33	0.106	1.161	0.123	0.235	0.147		33.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-79

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n25	40	QPSK	F	0126M	1:1	0.04	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.90	1	1	Right Cheek	0	0.811	1.148	0.931	0.931	0.582		19.8		
Head	NR Band n25	40	QPSK	F	0126M	1:1	0.03	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.84	108	0	Right Cheek	0	0.821	1.164	0.956	0.956	0.598		19.7		
Head	NR Band n25	40	QPSK	F	0126M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.75	216	0	Right Cheek	0	0.881	1.189	1.048	1.048	0.655		19.3		
Head	NR Band n25	40	QPSK	F	0126M	1:1	-0.02	1882.50	376500	CP-OFDM	0.0	19.5	19.08	1	1	Right Cheek	0	0.920	1.102	1.014	1.014	0.634	A62	19.4		
Head	NR Band n25	40	QPSK	F	0126M	1:1	0.05	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.90	1	1	Right Tilt	0	0.641	1.148	0.736	0.736	0.460		20.8	19.3	18.5
Head	NR Band n25	40	QPSK	F	0126M	1:1	0.01	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.84	108	0	Right Tilt	0	0.652	1.164	0.759	0.759	0.474		20.7		
Head	NR Band n25	40	QPSK	F	0126M	1:1	-0.05	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.90	1	1	Left Cheek	0	0.526	1.148	0.604	0.604	0.378		21.7		
Head	NR Band n25	40	QPSK	F	0126M	1:1	-0.02	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.84	108	0	Left Cheek	0	0.524	1.164	0.610	0.610	0.381		21.6		
Head	NR Band n25	40	QPSK	F	0126M	1:1	-0.20	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.90	1	1	Left Tilt	0	0.643	1.148	0.738	0.738	0.461		20.8		
Head	NR Band n25	40	QPSK	F	0126M	1:1	-0.03	1882.50	376500	DFT-s-OFDM	0.0	19.5	18.84	108	0	Left Tilt	0	0.657	1.164	0.765	0.765	0.478		20.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-80

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	-0.01	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Back	10	135	0.457	1.268	0.579	0.579	0.362	A63	21.4	18.0	18.0
Body-worn/Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Back	10	135	0.400	1.300	0.520	0.520	0.325		21.8		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	-0.12	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Front	10	135	0.321	1.268	0.407	0.407	0.254		22.9		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	-0.02	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Front	10	135	0.340	1.300	0.442	0.442	0.276		22.5		
Hotspot	NR Band n25	40	QPSK	A	0256M	1:1	-0.04	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Bottom	10	97	0.887	1.268	1.125	1.125	0.703		18.5		
Hotspot	NR Band n25	40	QPSK	A	0256M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Bottom	10	97	0.887	1.300	1.153	1.153	0.721		18.4		
Hotspot	NR Band n25	40	QPSK	A	0256M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.85	216	0	Bottom	10	97	0.964	1.303	1.256	1.256	0.785	A64	18.0		
Hotspot	NR Band n25	40	QPSK	A	0256M	1:1	-0.01	1882.50	376500	CP-OFDM	0.0	19.0	17.96	1	1	Bottom	10	97	0.860	1.271	1.093	1.093	0.683		18.6		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	-0.09	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Right	10	135	0.047	1.268	0.060	0.060	0.038		31.2		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	0.05	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Right	10	135	0.043	1.300	0.056	0.056	0.035		31.5		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	-0.07	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Left	10	135	0.054	1.268	0.068	0.068	0.043		30.6		
Hotspot	NR Band n25	40	QPSK	A	0236M	1:1	0.01	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Left	10	135	0.055	1.300	0.072	0.072	0.045		30.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-81

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.07	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.80	1	1	Back	10	0.136	1.318	0.179	0.179	0.112		28.5	22.3	20.0
Body-worn/Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.04	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.89	108	0	Back	10	0.148	1.291	0.191	0.191	0.119		28.2		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.03	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.80	1	1	Front	10	0.104	1.318	0.137	0.137	0.086		29.6		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.02	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.89	108	0	Front	10	0.110	1.291	0.142	0.142	0.089		29.5		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.01	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.80	1	1	Top	10	0.566	1.318	0.746	0.746	0.466		22.3		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	0.01	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.89	108	0	Top	10	0.570	1.291	0.736	0.736	0.460		22.3		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.01	1882.50	376500	CP-OFDM	0.0	21.0	19.79	1	1	Top	10	0.552	1.321	0.729	0.729	0.456		22.4		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	0.00	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.80	1	1	Left	10	0.048	1.318	0.063	0.063	0.039		33.0		
Hotspot	NR Band n25	40	QPSK	F	0126M	1:1	-0.02	1882.50	376500	DFT-s-OFDM	0.0	21.0	19.89	108	0	Left	10	0.053	1.291	0.068	0.068	0.043		32.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-82

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Tune state	Measured 10g SAR [W/kg]	Power Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	NR Band n25	40	QPSK	A	0256M	1:1	0.01	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.97	1	1	Bottom	0	74	1.410	1.268	1.788	1.788	0.447	A65	20.5	20.5	18.0
Phablet	NR Band n25	40	QPSK	A	0256M	1:1	-0.09	1882.50	376500	DFT-s-OFDM	0.0	19.0	17.86	108	0	Bottom	0	74	1.320	1.300	1.716	1.716	0.429		20.6		
Phablet	NR Band n25	40	QPSK	A	0256M	1:1	-0.02	1882.50	376500	CP-OFDM	0.0	19.0	17.96	1	1	Bottom	0	74	1.340	1.271	1.703	1.703	0.426		20.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																			Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

12.23 NR Band n30 Standalone SAR

Table 12-83

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.05	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.95	1	1	Right Cheek	0	0.028	1.135	0.032	0.241	0.151		38.5	37.1	32.3
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.08	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.85	25	14	Right Cheek	0	0.029	1.161	0.034	0.255	0.159		38.2		
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.07	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.95	1	1	Right Tilt	0	0.032	1.135	0.036	0.276	0.173		37.9		
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.05	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.85	25	14	Right Tilt	0	0.034	1.161	0.039	0.300	0.188		37.5		
Head	NR Band n30	10	QPSK	A	0256M	1:1	-0.02	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.95	1	1	Left Cheek	0	0.034	1.135	0.039	0.293	0.183		37.6		
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.05	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.85	25	14	Left Cheek	0	0.029	1.161	0.034	0.255	0.159		38.2		
Head	NR Band n30	10	QPSK	A	0256M	1:1	-0.20	2310.00	462000	CP-OFDM	1.5	22.0	21.42	1	1	Left Cheek	0	0.027	1.143	0.031	0.331	0.207		37.1		
Head	NR Band n30	10	QPSK	A	0256M	1:1	0.20	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.95	1	1	Left Tilt	0	0.029	1.135	0.033	0.250	0.156		38.3		
Head	NR Band n30	10	QPSK	A	0256M	1:1	-0.02	2310.00	462000	DFT-s-OFDM	0.0	23.5	22.85	25	14	Left Tilt	0	0.028	1.161	0.033	0.247	0.154		38.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-84

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n30	10	QPSK	F	0126M	1:1	0.03	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.52	1	1	Right Cheek	0	0.759	1.406	1.067	1.067	0.667		18.7	18.3	18.0
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.05	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.48	25	14	Right Cheek	0	0.770	1.419	1.093	1.093	0.683		18.6		
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.03	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.44	50	0	Right Cheek	0	0.781	1.432	1.118	1.118	0.699		18.5		
Head	NR Band n30	10	QPSK	F	0126M	1:1	0.08	2310.00	462000	CP-OFDM	0.0	19.0	17.54	1	1	Right Cheek	0	0.839	1.400	1.175	1.175	0.734	A66	18.3		
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.02	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.52	1	1	Right Tilt	0	0.769	1.406	1.081	1.081	0.676		18.7		
Head	NR Band n30	10	QPSK	F	0126M	1:1	0.01	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.48	25	14	Right Tilt	0	0.760	1.419	1.078	1.078	0.674		18.7		
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.01	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.44	50	0	Right Tilt	0	0.767	1.432	1.098	1.098	0.686		18.6		
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.03	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.52	1	1	Left Cheek	0	0.412	1.406	0.579	0.579	0.362		21.4		
Head	NR Band n30	10	QPSK	F	0126M	1:1	0.03	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.48	25	14	Left Cheek	0	0.422	1.419	0.599	0.599	0.374		21.2		
Head	NR Band n30	10	QPSK	F	0126M	1:1	0.00	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.52	1	1	Left Tilt	0	0.511	1.406	0.718	0.718	0.449		20.4		
Head	NR Band n30	10	QPSK	F	0126M	1:1	-0.03	2310.00	462000	DFT-s-OFDM	0.0	19.0	17.48	25	14	Left Tilt	0	0.503	1.419	0.714	0.714	0.446		20.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																		Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 12-85

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.04	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	1	26	Back	10	0.334	1.140	0.381	0.381	0.238	A67	24.7		
Body-worn/Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	0.01	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	25	14	Back	10	0.324	1.140	0.369	0.369	0.231		24.8		
Hotspot	NR Band n30	10	QPSK	A	0526M	1:1	-0.05	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	1	26	Front	10	0.355	1.140	0.405	0.405	0.253		24.4		
Hotspot	NR Band n30	10	QPSK	A	056M	1:1	0.01	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	25	14	Front	10	0.356	1.140	0.406	0.406	0.254		24.4		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.07	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	1	26	Bottom	10	0.845	1.140	0.963	0.963	0.602		20.7		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.01	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	25	14	Bottom	10	0.831	1.140	0.947	0.947	0.592		20.7	20.7	19.5
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	0.03	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.84	50	0	Bottom	10	0.814	1.164	0.947	0.947	0.592		20.7		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.01	2310.00	462000	CP-OFDM	0.0	20.5	19.99	1	1	Bottom	10	0.849	1.125	0.955	0.955	0.597	A68	20.7		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.14	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	1	26	Right	10	0.105	1.140	0.120	0.120	0.075		29.7		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	0.08	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	25	14	Right	10	0.102	1.140	0.116	0.116	0.073		29.8		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.18	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	1	26	Left	10	0.070	1.140	0.080	0.080	0.050		31.5		
Hotspot	NR Band n30	10	QPSK	A	0256M	1:1	-0.03	2310.00	462000	DFT-s-OFDM	0.0	20.5	19.93	25	14	Left	10	0.069	1.140	0.079	0.079	0.049		31.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-86

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	0.02	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.99	1	1	Back	10	0.264	1.262	0.333	0.333	0.208		25.8		
Body-worn/Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.11	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.98	25	0	Back	10	0.262	1.265	0.331	0.331	0.207		25.8		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.13	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.99	1	1	Front	10	0.181	1.262	0.228	0.228	0.143		27.4		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.08	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.98	25	0	Front	10	0.183	1.265	0.231	0.231	0.144		27.4		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.02	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.99	1	1	Top	10	0.527	1.262	0.665	0.665	0.416		22.8	22.7	20.0
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.05	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.98	25	0	Top	10	0.531	1.265	0.672	0.672	0.420		22.7		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	0.01	2310.00	462000	CP-OFDM	0.0	21.0	20.27	1	1	Top	10	0.556	1.183	0.658	0.658	0.411		22.8		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.07	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.99	1	1	Left	10	0.082	1.262	0.103	0.103	0.064		30.9		
Hotspot	NR Band n30	10	QPSK	F	0126M	1:1	-0.08	2310.00	462000	DFT-s-OFDM	0.0	21.0	19.98	25	0	Left	10	0.082	1.265	0.104	0.104	0.065		30.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.24 NR Band n7 Standalone SAR

Table 12-87

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.07	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.34	1	1	Right Cheek	0	0.116	1.164	0.135	0.332	0.208		32.7		
Head	NR Band n7	40	QPSK	B	0236M	1:1	-0.03	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.24	10B	54	Right Cheek	0	0.099	1.191	0.118	0.289	0.181		33.3		
Head	NR Band n7	40	QPSK	B	0236M	1:1	-0.14	2535.00	507000	CP-OFDM	1.5	22.5	21.94	1	1	Right Cheek	0	0.081	1.138	0.092	0.320	0.200		32.9		
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.05	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.34	1	1	Right Tilt	0	0.051	1.164	0.059	0.146	0.091		36.3		
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.02	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.24	10B	54	Right Tilt	0	0.054	1.191	0.064	0.158	0.099		35.9	32.7	27.9
Head	NR Band n7	40	QPSK	B	0236M	1:1	-0.08	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.34	1	1	Left Cheek	0	0.059	1.164	0.069	0.169	0.106		35.6		
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.24	10B	54	Left Cheek	0	0.040	1.191	0.048	0.117	0.073		37.2		
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.12	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.34	1	1	Left Tilt	0	0.039	1.164	0.045	0.111	0.069		37.4		
Head	NR Band n7	40	QPSK	B	0236M	1:1	0.04	2535.00	507000	DFT-s-OFDM	0.0	24.0	23.24	10B	54	Left Tilt	0	0.042	1.191	0.050	0.123	0.077		37.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-88

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.46	1	1	Right Cheek	0	0.332	1.426	0.473	0.473	0.296		20.2		
Head	NR Band n7	40	QPSK	F	0404M	1:1	-0.06	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.42	10B	54	Right Cheek	0	0.335	1.439	0.482	0.482	0.301		20.2		
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.02	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.46	1	1	Right Tilt	0	0.423	1.426	0.603	0.603	0.377		19.2		
Head	NR Band n7	40	QPSK	F	0404M	1:1	-0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.42	10B	54	Right Tilt	0	0.417	1.439	0.600	0.600	0.375		19.2		
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.00	2535.00	507000	CP-OFDM	0.0	17.0	15.52	1	1	Right Tilt	0	0.445	1.406	0.626	0.626	0.391	A69	19.0	19.0	16.0
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.46	1	1	Left Cheek	0	0.172	1.426	0.245	0.245	0.153		23.1		
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.42	10B	54	Left Cheek	0	0.168	1.439	0.242	0.242	0.151		23.2		
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.46	1	1	Left Tilt	0	0.197	1.426	0.281	0.281	0.176		22.5		
Head	NR Band n7	40	QPSK	F	0404M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	17.0	15.42	10B	54	Left Tilt	0	0.198	1.439	0.285	0.285	0.178		22.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-89

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	-0.03	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.28	1	1	Back	10	0.242	1.052	0.255	0.255	0.159		26.4		
Body-worn/Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	-0.01	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.24	108	0	Back	10	0.253	1.062	0.269	0.269	0.168		26.2		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	0.05	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.28	1	1	Front	10	0.263	1.052	0.277	0.277	0.173		26.1		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	-0.04	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.24	108	0	Front	10	0.290	1.062	0.308	0.308	0.193		25.6		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	0.01	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.28	1	1	Bottom	10	0.380	1.052	0.400	0.400	0.250		24.5	24.2	19.5
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	0.03	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.24	108	0	Bottom	10	0.402	1.062	0.427	0.427	0.267		24.2		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	-0.07	2535.00	507000	CP-OFDM	0.0	20.5	20.36	1	1	Bottom	10	0.398	1.033	0.411	0.411	0.257		24.4		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	0.00	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.28	1	1	Right	10	0.351	1.052	0.369	0.369	0.231		24.8		
Hotspot	NR Band n7	40	QPSK	B	0256M	1:1	-0.02	2535.00	507000	DFT-s-OFDM	0.0	20.5	20.24	108	0	Right	10	0.368	1.062	0.391	0.391	0.244		24.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-90

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	0.08	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.43	1	1	Back	10	0.372	1.250	0.465	0.465	0.291	A70	23.7		
Body-worn/Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	-0.03	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.48	108	54	Back	10	0.322	1.236	0.398	0.398	0.249		24.4		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	-0.08	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.43	1	1	Front	10	0.402	1.250	0.503	0.503	0.314		23.4		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	-0.01	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.48	108	54	Front	10	0.397	1.236	0.491	0.491	0.307		23.5		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	-0.03	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.43	1	1	Top	10	0.721	1.250	0.901	0.901	0.563		20.9	20.8	19.4
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	0.03	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.48	108	54	Top	10	0.693	1.236	0.857	0.857	0.536		21.1		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	-0.01	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.27	216	0	Top	10	0.701	1.297	0.909	0.909	0.568		20.8		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	0.02	2535.00	507000	CP-OFDM	0.0	20.4	19.60	1	1	Top	10	0.746	1.202	0.897	0.897	0.561	A71	20.9		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	0.09	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.43	1	1	Left	10	0.088	1.250	0.110	0.110	0.069		30.0		
Hotspot	NR Band n7	40	QPSK	F	0404M	1:1	0.10	2535.00	507000	DFT-s-OFDM	0.0	20.4	19.48	108	54	Left	10	0.078	1.236	0.096	0.096	0.060		30.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.25 NR Band n41 Standalone SAR

Table 12-91

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.04	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.43	1	137	Right Cheek	0	0.747	1.016	0.759	0.759	0.474		18.6		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.09	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.42	135	69	Right Cheek	0	0.755	1.019	0.769	0.769	0.481		18.6		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.05	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.36	270	0	Right Cheek	0	0.768	1.033	0.793	0.793	0.496		18.5		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.03	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.43	1	137	Right Tilt	0	0.914	1.016	0.929	0.929	0.581	A72	17.8		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.03	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.43	1	137	Right Tilt	0	0.883	1.016	0.894	0.894	0.559		17.9		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.03	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.42	135	69	Right Tilt	0	0.853	1.019	0.869	0.869	0.543		18.1	17.6	16.5
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.02	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.36	270	0	Right Tilt	0	0.900	1.033	0.930	0.930	0.581		17.8		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.05	2592.99	518598	CP-OFDM	0.0	17.5	17.25	1	1	Right Tilt	0	0.908	1.059	0.962	0.962	0.601		17.6		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.01	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.43	1	137	Left Cheek	0	0.388	1.016	0.394	0.394	0.246		21.5		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.01	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.42	135	69	Left Cheek	0	0.387	1.019	0.394	0.394	0.246		21.5		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.04	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.43	1	137	Left Tilt	0	0.446	1.016	0.453	0.453	0.283		20.9		
Head	NR Band n41	100	QPSK	F	1	0160M	1:1	0.02	2592.99	518598	DFT-s-OFDM	0.0	17.5	17.42	135	69	Left Tilt	0	0.450	1.019	0.459	0.459	0.287		20.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-92

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	F	2	0084M	1:1	-0.01	2592.99	518598	CW/SRS	16.0	14.94	Right Tilt	0	0.893	1.276	1.139	1.139	0.712		15.4	15.4	15.0
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-93

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	0.03	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.54	1	137	Back	10	0.199	1.112	0.221	0.221	0.138		26.5		
Body-worn/Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.10	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.55	135	69	Back	10	0.217	1.109	0.241	0.241	0.151		26.1		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.01	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.54	1	137	Front	10	0.263	1.112	0.292	0.292	0.183		25.3		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	0.03	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.55	135	69	Front	10	0.241	1.109	0.267	0.267	0.167		25.7		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.04	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.54	1	137	Top	10	0.411	1.112	0.457	0.457	0.286		23.4	22.8	19.0
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.01	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.55	135	69	Top	10	0.417	1.109	0.462	0.462	0.289		23.3		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.07	2592.99	518598	CP-OFDM	0.0	20.0	19.51	1	1	Top	10	0.463	1.119	0.518	0.518	0.324		22.8		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.02	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.54	1	137	Left	10	0.040	1.112	0.044	0.044	0.028		33.5		
Hotspot	NR Band n41	100	QPSK	F	1	0160M	1:1	-0.09	2592.99	518598	DFT-s-OFDM	0.0	20.0	19.55	135	69	Left	10	0.041	1.109	0.045	0.045	0.028		33.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-94

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	F	2	0160M	1:1	0.07	2592.99	518598	CW/SRS	18.0	16.48	Back	10	0.207	1.419	0.294	0.294	0.184		23.3	20.7	17.0
Hotspot	NR Band n41	100	F	2	0160M	1:1	-0.06	2592.99	518598	CW/SRS	18.0	16.48	Top	10	0.378	1.419	0.536	0.536	0.335		20.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-95

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.03	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.41	1	1	Right Cheek	0	0.070	1.146	0.080	0.080	0.050		32.9		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.04	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.23	135	0	Right Cheek	0	0.066	1.194	0.079	0.079	0.049		33.0		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.03	2592.99	518598	CP-OFDM	0.0	22.0	21.33	1	1	Right Cheek	0	0.084	1.167	0.098	0.098	0.061		32.0		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.08	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.41	1	1	Right Tilt	0	0.050	1.146	0.057	0.057	0.036		34.4		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.03	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.23	135	0	Right Tilt	0	0.045	1.194	0.054	0.054	0.034		34.6	32.0	21.0
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	0.06	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.41	1	1	Left Cheek	0	0.035	1.146	0.040	0.040	0.025		35.9		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	0.06	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.23	135	0	Left Cheek	0	0.031	1.194	0.037	0.037	0.023		36.3		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	0.07	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.41	1	1	Left Tilt	0	0.043	1.146	0.049	0.049	0.031		35.0		
Head	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.07	2592.99	518598	DFT-s-OFDM	0.0	22.0	21.23	135	0	Left Tilt	0	0.059	1.194	0.070	0.070	0.044		33.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-96

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	B	1	0160M	1:1	0.05	2592.99	518598	CW/SRS	20.0	19.25	Right Cheek	0	0.058	1.189	0.069	0.069	0.043		31.6	31.6	19.0
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-97

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.01	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.43	1	1	Back	10	0.344	1.016	0.350	0.350	0.219	A73	25.0		
Body-worn/Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.04	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.35	135	0	Back	10	0.333	1.035	0.345	0.345	0.216		25.1		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.04	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.43	1	1	Front	10	0.341	1.016	0.346	0.346	0.216		25.1		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	0.03	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.35	135	0	Front	10	0.331	1.035	0.343	0.343	0.214		25.1		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	0.00	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.43	1	1	Bottom	10	0.534	1.016	0.543	0.543	0.339		23.1	23.0	19.5
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.06	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.35	135	0	Bottom	10	0.538	1.035	0.557	0.557	0.348		23.0		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	-0.03	2592.99	518598	CP-OFDM	0.0	20.5	20.45	1	1	Bottom	10	0.540	1.012	0.546	0.546	0.341	A74	23.1		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	0.01	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.43	1	1	Right	10	0.539	1.016	0.548	0.548	0.343		23.1		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	0.00	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.35	135	0	Right	10	0.516	1.035	0.534	0.534	0.334		23.2		
Hotspot	NR Band n41	100	QPSK	B	2	0160M	1:1	0.00	2592.99	518598	DFT-s-OFDM	0.0	20.5	20.27	270	0	Right	10	0.524	1.054	0.552	0.552	0.345		23.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-98

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	B	1	0160M	1:1	-0.01	2592.99	518598	CW/SRS	18.5	18.39	Back	10	0.174	1.026	0.179	0.179	0.112		25.9	22.6	17.5
Hotspot	NR Band n41	100	B	1	0160M	1:1	0.07	2592.99	518598	CW/SRS	18.5	18.39	Bottom	10	0.373	1.026	0.383	0.383	0.239		22.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-99

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	E	1	0160M	1:1	-0.02	2592.99	518598	CW/SRS	18.0	17.76	Right Cheek	0	0.075	1.057	0.079	0.079	0.049		29.0		
Head	NR Band n41	100	E	1	0160M	1:1	-0.04	2592.99	518598	CW/SRS	18.0	17.76	Right Tilt	0	0.077	1.057	0.081	0.081	0.051		28.8		
Head	NR Band n41	100	E	1	0160M	1:1	0.09	2592.99	518598	CW/SRS	18.0	17.76	Left Cheek	0	0.268	1.057	0.283	0.283	0.177		23.4	23.4	17.0
Head	NR Band n41	100	E	1	0160M	1:1	0.00	2592.99	518598	CW/SRS	18.0	17.76	Left Tilt	0	0.229	1.057	0.242	0.242	0.151		24.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-100

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	E	2	0160M	1:1	0.04	2592.99	518598	CW/SRS	15.0	14.76	Left Cheek	0	0.210	1.057	0.222	0.222	0.139		21.5	21.5	14.0
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-101

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	E	1	0160M	1:1	-0.12	2592.99	518598	CW/SRS	18.0	17.76	Back	10	0.034	1.057	0.036	0.036	0.023		32.4	30.9	17.0
Hotspot	NR Band n41	100	E	1	0160M	1:1	0.11	2592.99	518598	CW/SRS	18.0	17.76	Front	10	0.048	1.057	0.051	0.051	0.032		30.9		
Hotspot	NR Band n41	100	E	1	0160M	1:1	-0.08	2592.99	518598	CW/SRS	18.0	17.76	Top	10	0.043	1.057	0.045	0.045	0.028		31.4		
Hotspot	NR Band n41	100	E	1	0160M	1:1	0.03	2592.99	518598	CW/SRS	18.0	17.76	Right	10	0.046	1.057	0.049	0.049	0.031		31.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-102

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	E	2	0160M	1:1	0.05	2592.99	518598	CW/SRS	15.0	14.76	Back	10	0.020	1.057	0.021	0.021	0.013		31.7	29.1	14.0
Hotspot	NR Band n41	100	E	2	0160M	1:1	-0.01	2592.99	518598	CW/SRS	15.0	14.76	Front	10	0.036	1.057	0.038	0.038	0.024		29.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-103

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	D	2	0160M	1:1	-0.02	2592.99	518598	CW/SRS	18.0	17.37	Right Cheek	0	0.002	1.156	0.002	0.002	0.001		44.3	44.3	17.0
Head	NR Band n41	100	D	2	0160M	1:1	0.09	2592.99	518598	CW/SRS	18.0	17.37	Right Tilt	0	0.000	1.156	0.000	0.000	0.000		57.3		
Head	NR Band n41	100	D	2	0160M	1:1	0.01	2592.99	518598	CW/SRS	18.0	17.37	Left Cheek	0	0.000	1.156	0.000	0.000	0.000		57.3		
Head	NR Band n41	100	D	2	0160M	1:1	0.07	2592.99	518598	CW/SRS	18.0	17.37	Left Tilt	0	0.001	1.156	0.001	0.001	0.001		47.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-104

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n41	100	D	1	0160M	1:1	0.01	2592.99	518598	CW/SRS	17.5	16.35	Right Cheek	0	0.004	1.303	0.005	0.005	0.003		40.3	40.3	16.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Additional check on the worst case exposure scenario for the n41 pathway that is not fully evaluated.

Table 12-105

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Path #	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	D	2	0160M	1:1	-0.06	2592.99	518598	CW/SRS	18.0	17.37	Back	10	0.167	1.156	0.193	0.193	0.121		25.1	25.1	17.0
Hotspot	NR Band n41	100	D	2	0160M	1:1	0.08	2592.99	518598	CW/SRS	18.0	17.37	Front	10	0.010	1.156	0.012	0.012	0.008		37.3		
Hotspot	NR Band n41	100	D	2	0160M	1:1	0.07	2592.99	518598	CW/SRS	18.0	17.37	Bottom	10	0.049	1.156	0.057	0.057	0.036		30.4		
Hotspot	NR Band n41	100	D	2	0160M	1:1	0.04	2592.99	518598	CW/SRS	18.0	17.37	Left	10	0.012	1.156	0.014	0.014	0.009		36.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-106

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Tune state	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n41	100	N/A	D	0160M	1:1	0.01	2592.99	518598	CW/SRS	N/A	17.5	16.35	Back	10	0.102	N/A	1.303	0.133	0.133		26.3	26.3	16.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.26 NR Band n48 Standalone SAR

Table 12-107

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.02	3570.00	638000	DFT-s-OFDM	0.0	17.5	17.07	1	104	Right Cheek	0	0.862	1.104	0.952	0.952	0.595		17.7		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.00	3624.99	641666	DFT-s-OFDM	0.0	17.5	17.32	1	104	Right Cheek	0	0.927	1.042	0.966	0.966	0.604		17.6		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.02	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.50	1	104	Right Cheek	0	0.949	1.000	0.949	0.949	0.593		17.7		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.00	3570.00	638000	DFT-s-OFDM	0.0	17.5	17.03	50	56	Right Cheek	0	0.917	1.114	1.022	1.022	0.639		17.4		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.00	3624.99	641666	DFT-s-OFDM	0.0	17.5	17.32	50	56	Right Cheek	0	0.956	1.042	0.996	0.996	0.623		17.5		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.09	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.46	50	28	Right Cheek	0	0.953	1.009	0.962	0.962	0.601		17.7		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.03	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.45	100	0	Right Cheek	0	0.938	1.012	0.941	0.941	0.588		17.8		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.00	3679.98	645332	CP-OFDM	0.0	17.5	17.49	1	1	Right Cheek	0	0.934	1.002	0.936	0.936	0.585		17.8		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3570.00	638000	DFT-s-OFDM	0.0	17.5	17.07	1	104	Right Tilt	0	0.822	1.104	0.907	0.907	0.567		17.9		
Head	NR Band n48	40	QPSK	F	0246M	1:1	0.06	3624.99	641666	DFT-s-OFDM	0.0	17.5	17.32	1	104	Right Tilt	0	0.958	1.042	0.998	0.998	0.624		17.5	17.4	16.5
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.01	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.50	1	104	Right Tilt	0	0.921	1.000	0.921	0.921	0.576		17.9		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.01	3570.00	638000	DFT-s-OFDM	0.0	17.5	17.03	50	56	Right Tilt	0	0.847	1.114	0.944	0.944	0.590		17.8		
Head	NR Band n48	40	QPSK	F	0160M	1:1	0.03	3624.99	641666	DFT-s-OFDM	0.0	17.5	17.32	50	56	Right Tilt	0	0.846	1.042	0.882	0.882	0.551		18.0		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.05	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.46	50	28	Right Tilt	0	0.948	1.009	0.957	0.957	0.598		17.7		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.45	100	0	Right Tilt	0	0.964	1.012	0.976	0.976	0.610	A75	17.6		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.04	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.50	1	104	Left Cheek	0	0.471	1.000	0.471	0.471	0.294		20.8		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.04	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.46	50	28	Left Cheek	0	0.476	1.009	0.480	0.480	0.300		20.7		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.50	1	104	Left Tilt	0	0.492	1.000	0.492	0.492	0.308		20.6		
Head	NR Band n48	40	QPSK	F	0160M	1:1	-0.05	3679.98	645332	DFT-s-OFDM	0.0	17.5	17.46	50	28	Left Tilt	0	0.514	1.009	0.519	0.519	0.324		20.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-108

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n48	40	C	0160M	1:1	0.05	3679.98	645332	CW/SRS	12.5	12.13	Right Cheek	0	0.021	1.089	0.023	0.023	0.014		28.9		
Head	NR Band n48	40	C	0160M	1:1	0.06	3679.98	645332	CW/SRS	12.5	12.13	Right Tilt	0	0.004	1.089	0.004	0.004	0.003		36.1	28.9	11.5
Head	NR Band n48	40	C	0160M	1:1	0.07	3679.98	645332	CW/SRS	12.5	12.13	Left Cheek	0	0.000	1.089	0.000	0.000	0.000		52.1		
Head	NR Band n48	40	C	0160M	1:1	0.08	3679.98	645332	CW/SRS	12.5	12.13	Left Tilt	0	0.011	1.089	0.012	0.012	0.008		31.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-109

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n48	40	I	0160M	1:1	-0.03	3624.99	641666	CW/SRS	17.0	16.45	Right Cheek	0	0.518	1.135	0.588	0.588	0.368		19.3		
Head	NR Band n48	40	I	0160M	1:1	0.06	3624.99	641666	CW/SRS	17.0	16.45	Right Tilt	0	0.067	1.135	0.076	0.076	0.048		28.2	19.3	16.0
Head	NR Band n48	40	I	0160M	1:1	-0.11	3624.99	641666	CW/SRS	17.0	16.45	Left Cheek	0	0.284	1.135	0.322	0.322	0.201		21.9		
Head	NR Band n48	40	I	0160M	1:1	-0.16	3624.99	641666	CW/SRS	17.0	16.45	Left Tilt	0	0.045	1.135	0.051	0.051	0.032		29.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-110

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n48	40	D	0160M	1:1	0.05	3679.98	645332	CW/SRS	12.5	12.33	Right Cheek	0	0.000	1.040	0.000	0.000	0.000		52.3		
Head	NR Band n48	40	D	0160M	1:1	0.09	3679.98	645332	CW/SRS	12.5	12.33	Right Tilt	0	0.000	1.040	0.000	0.000	0.000		52.3	52.3	11.5
Head	NR Band n48	40	D	0160M	1:1	0.07	3679.98	645332	CW/SRS	12.5	12.33	Left Cheek	0	0.000	1.040	0.000	0.000	0.000		52.3		
Head	NR Band n48	40	D	0160M	1:1	0.05	3679.98	645332	CW/SRS	12.5	12.33	Left Tilt	0	0.000	1.040	0.000	0.000	0.000		52.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-111

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.58	1	104	Back	10	0.278	1.102	0.306	0.306	0.191	A76	26.1		
Body-worn/Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.52	50	28	Back	10	0.271	1.117	0.303	0.303	0.189		26.2		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.01	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.58	1	104	Front	10	0.220	1.102	0.242	0.242	0.151		27.2		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.04	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.52	50	28	Front	10	0.231	1.117	0.258	0.258	0.161		26.9		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.58	1	104	Top	10	0.464	1.102	0.511	0.511	0.319		23.9	23.1	20.0
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	0.00	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.52	50	28	Top	10	0.473	1.117	0.528	0.528	0.330		23.8		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.03	3679.98	645332	CP-OFDM	0.0	21.0	20.56	1	1	Top	10	0.560	1.107	0.620	0.620	0.388	A77	23.1		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	-0.05	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.58	1	104	Left	10	0.082	1.102	0.090	0.090	0.056		31.4		
Hotspot	NR Band n48	40	QPSK	F	0160M	1:1	0.01	3679.98	645332	DFT-s-OFDM	0.0	21.0	20.52	50	28	Left	10	0.086	1.117	0.096	0.096	0.060		31.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-112

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n48	40	C	0160M	1:1	-0.04	3679.98	645332	CW/SRS	15.5	14.96	Back	10	0.079	1.132	0.089	0.089	0.056		26.0	22.9	14.5
Hotspot	NR Band n48	40	C	0160M	1:1	0.08	3679.98	645332	CW/SRS	15.5	14.96	Front	10	0.087	1.132	0.098	0.098	0.061		25.6		
Hotspot	NR Band n48	40	C	0160M	1:1	-0.04	3679.98	645332	CW/SRS	15.5	14.96	Bottom	10	0.036	1.132	0.041	0.041	0.026		29.4		
Hotspot	NR Band n48	40	C	0160M	1:1	-0.04	3679.98	645332	CW/SRS	15.5	14.96	Right	10	0.160	1.132	0.181	0.181	0.113		22.9		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-113

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n48	40	I	0246M	1:1	0.04	3624.99	641666	CW/SRS	20.0	19.40	Back	10	0.164	1.148	0.188	0.188	0.118		27.3	27.3	19.0
Hotspot	NR Band n48	40	I	0246M	1:1	-0.06	3624.99	641666	CW/SRS	20.0	19.40	Front	10	0.154	1.148	0.177	0.177	0.111		27.5		
Hotspot	NR Band n48	40	I	0246M	1:1	-0.18	3624.99	641666	CW/SRS	20.0	19.40	Left	10	0.068	1.148	0.078	0.078	0.049		31.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-114

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n48	40	D	0246M	1:1	-0.02	3679.98	645332	CW/SRS	15.5	15.05	Back	10	0.141	1.109	0.156	0.156	0.098		23.6	23.6	14.5
Hotspot	NR Band n48	40	D	0246M	1:1	0.04	3679.98	645332	CW/SRS	15.5	15.05	Front	10	0.005	1.109	0.006	0.006	0.004		38.1		
Hotspot	NR Band n48	40	D	0246M	1:1	0.12	3679.98	645332	CW/SRS	15.5	15.05	Bottom	10	0.047	1.109	0.052	0.052	0.033		28.3		
Hotspot	NR Band n48	40	D	0246M	1:1	0.07	3679.98	645332	CW/SRS	15.5	15.05	Left	10	0.005	1.109	0.006	0.006	0.004		38.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.27 NR Band n77 Standalone SAR

Table 12-115

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.03	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.88	1	1	Right Cheek	0	0.954	1.028	0.981	0.981	0.613		17.0		
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.00	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.85	1	1	Right Cheek	0	0.901	1.035	0.933	0.933	0.583		17.3		
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.05	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.82	135	0	Right Cheek	0	0.909	1.042	0.947	0.947	0.592		17.2		
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.03	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.72	135	0	Right Cheek	0	0.885	1.067	0.944	0.944	0.590		17.2		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.80	270	0	Right Cheek	0	0.912	1.047	0.955	0.955	0.597		17.2		
Head	NR Band n77 DoD	100	QPSK	F	0246M	1:1	0.02	3500.01	633334	DFT-s-OFDM	0.0	17.0	16.50	1	1	Right Tilt	0	0.674	1.122	0.756	0.756	0.473		18.2		
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.88	1	1	Right Tilt	0	0.969	1.028	0.996	0.996	0.623	A78	17.0		
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.02	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.88	1	1	Right Tilt	0	0.929	1.028	0.955	0.955	0.597		17.1		
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.05	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.85	1	1	Right Tilt	0	0.903	1.035	0.935	0.935	0.584		17.2		
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.01	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.85	1	1	Right Tilt	0	0.871	1.035	0.948	0.948	0.530		17.7		
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.82	135	0	Right Tilt	0	0.923	1.042	0.962	0.962	0.601		17.1		
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.09	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.72	135	0	Right Tilt	0	0.789	1.067	0.842	0.842	0.526		17.7	17.0	16.0
Head	NR Band n77	100	QPSK	F	0246M	1:1	-0.05	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.80	270	0	Right Tilt	0	0.888	1.047	0.930	0.930	0.581		17.3		
Head	NR Band n77	100	QPSK	F	0246M	1:1	0.02	3750.00	650000	CP-OFDM	0.0	17.0	16.99	1	1	Right Tilt	0	0.944	1.002	0.946	0.946	0.591		17.2		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.88	1	1	Left Cheek	0	0.394	1.028	0.405	0.405	0.253		20.9		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.02	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.85	1	1	Left Cheek	0	0.376	1.035	0.389	0.389	0.243		21.0		
Head	NR Band n77	100	QPSK	F	0160M	1:1	0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.82	135	0	Left Cheek	0	0.372	1.042	0.388	0.388	0.243		21.1		
Head	NR Band n77	100	QPSK	F	0160M	1:1	0.06	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.80	270	0	Left Cheek	0	0.365	1.047	0.382	0.382	0.239		21.1		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.04	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.88	1	1	Left Tilt	0	0.488	1.028	0.502	0.502	0.314		19.9		
Head	NR Band n77	100	QPSK	F	0160M	1:1	0.03	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.85	1	1	Left Tilt	0	0.448	1.035	0.464	0.464	0.290		20.3		
Head	NR Band n77	100	QPSK	F	0160M	1:1	0.00	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.82	135	0	Left Tilt	0	0.452	1.042	0.471	0.471	0.294		20.2		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.02	3930.00	662000	DFT-s-OFDM	0.0	17.0	16.72	135	0	Left Tilt	0	0.444	1.067	0.474	0.474	0.296		20.2		
Head	NR Band n77	100	QPSK	F	0160M	1:1	-0.01	3750.00	650000	DFT-s-OFDM	0.0	17.0	16.80	270	0	Left Tilt	0	0.421	1.047	0.441	0.441	0.276		20.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement

Table 12-116

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n77 DoD	100	C	0160M	1:1	0.08	3500.01	633334	CW/SRS	12.5	11.01	Right Cheek	0	0.026	1.409	0.037	0.037	0.023		26.8	26.8	11.5
Head	NR Band n77	100	C	0246M	1:1	0.01	3930.00	662000	CW/SRS	12.5	12.05	Right Cheek	0	0.017	1.109	0.019	0.019	0.012		29.7		
Head	NR Band n77	100	C	0246M	1:1	0.05	3930.00	662000	CW/SRS	12.5	12.05	Right Tilt	0	0.004	1.109	0.004	0.004	0.003		36.0		
Head	NR Band n77	100	C	0246M	1:1	0.04	3930.00	662000	CW/SRS	12.5	12.05	Left Cheek	0	0.002	1.109	0.002	0.002	0.001		39.0		
Head	NR Band n77	100	C	0246M	1:1	0.09	3930.00	662000	CW/SRS	12.5	12.05	Left Tilt	0	0.006	1.109	0.007	0.007	0.004		34.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-117

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n77	100	I	0160M	1:1	0.00	3750.00	650000	CW/SRS	14.5	12.64	Right Cheek	0	0.527	1.535	0.809	0.809	0.506		15.4		
Head	NR Band n77	100	I	0160M	1:1	-0.04	3930.00	662000	CW/SRS	14.5	13.37	Right Cheek	0	0.575	1.297	0.746	0.746	0.466		15.7		
Head	NR Band n77	100	I	0160M	1:1	0.03	3930.00	662000	CW/SRS	14.5	13.37	Right Tilt	0	0.070	1.297	0.091	0.091	0.057		24.9		
Head	NR Band n77 DoD	100	I	0160M	1:1	0.02	3500.01	633334	CW/SRS	14.5	12.79	Left Cheek	0	0.452	1.483	0.670	0.670	0.419		16.2	14.4	13.5
Head	NR Band n77	100	I	0160M	1:1	0.01	3750.00	650000	CW/SRS	14.5	12.64	Left Cheek	0	0.647	1.535	0.993	0.993	0.621		14.5		
Head	NR Band n77	100	I	0160M	1:1	-0.06	3930.00	662000	CW/SRS	14.5	13.37	Left Cheek	0	0.784	1.297	1.017	1.017	0.636		14.4		
Head	NR Band n77	100	I	0160M	1:1	-0.02	3930.00	662000	CW/SRS	14.5	13.37	Left Tilt	0	0.093	1.297	0.121	0.121	0.076		23.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-118

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	NR Band n77 DoD	100	D	0160M	1:1	0.04	3500.01	633334	CW/SRS	12.5	11.16	Right Cheek	0	0.000	1.361	0.000	0.000	0.000		51.1		
Head	NR Band n77	100	D	0160M	1:1	0.01	3930.00	662000	CW/SRS	12.5	11.87	Right Cheek	0	0.000	1.156	0.000	0.000	0.000		51.8		
Head	NR Band n77	100	D	0160M	1:1	0.01	3930.00	662000	CW/SRS	12.5	11.87	Right Tilt	0	0.000	1.156	0.000	0.000	0.000		51.8	51.1	11.5
Head	NR Band n77	100	D	0160M	1:1	0.01	3930.00	662000	CW/SRS	12.5	11.87	Left Cheek	0	0.000	1.156	0.000	0.000	0.000		51.8		
Head	NR Band n77	100	D	0160M	1:1	0.06	3930.00	662000	CW/SRS	12.5	11.87	Left Tilt	0	0.000	1.156	0.000	0.000	0.000		51.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-119

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	RB Size	RB Offset	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n77 DoD	100	QPSK	F	0246M	1:1	-0.07	3500.01	633334	DFT-s-OFDM	0.0	19.5	19.13	1	1	Back	10	0.227	1.089	0.247	0.247	0.154		25.5		
Body-worn/Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	0.01	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.47	1	1	Back	10	0.246	1.007	0.248	0.248	0.155	A79	25.5		
Body-worn/Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	0.00	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.42	135	0	Back	10	0.236	1.019	0.240	0.240	0.150		25.6		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.09	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.47	1	1	Front	10	0.232	1.007	0.234	0.234	0.146		25.8		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.14	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.42	135	0	Front	10	0.219	1.019	0.223	0.223	0.139		26.0		
Hotspot	NR Band n77 DoD	100	QPSK	F	0246M	1:1	-0.06	3500.01	633334	DFT-s-OFDM	0.0	19.5	19.13	1	1	Top	10	0.311	1.089	0.339	0.339	0.212		24.2		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.03	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.47	1	1	Top	10	0.567	1.007	0.571	0.571	0.357	A80	21.9		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.05	3930.00	662000	DFT-s-OFDM	0.0	19.5	19.40	1	1	Top	10	0.346	1.023	0.354	0.354	0.221		24.0		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.03	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.42	135	0	Top	10	0.414	1.019	0.422	0.422	0.264		23.2		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	0.02	3930.00	662000	DFT-s-OFDM	0.0	19.5	19.16	135	0	Top	10	0.353	1.081	0.382	0.382	0.239		23.6		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.07	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.34	270	0	Top	10	0.393	1.038	0.408	0.408	0.255		23.3		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	-0.03	3750.00	650000	CP-OFDM	0.0	19.5	19.49	1	1	Top	10	0.481	1.002	0.482	0.482	0.301		22.6		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	0.02	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.47	1	1	Left	10	0.084	1.007	0.085	0.085	0.053		30.2		
Hotspot	NR Band n77	100	QPSK	F	0246M	1:1	0.02	3750.00	650000	DFT-s-OFDM	0.0	19.5	19.42	135	0	Left	10	0.085	1.019	0.087	0.087	0.054		30.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 12-120

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	MPR [dB]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n77 DoD	100	N/A	C	0246M	1:1	-0.06	3500.01	633334	CW/SRS	N/A	16.0	14.24	Back	10	0.099	1.500	0.149	0.149		24.3		
Body-worn/Hotspot	NR Band n77	100	N/A	C	0246M	1:1	-0.08	3930.00	662000	CW/SRS	N/A	16.0	15.22	Back	10	0.106	1.197	0.127	0.127		25.0		
Hotspot	NR Band n77	100	N/A	C	0246M	1:1	0.08	3930.00	662000	CW/SRS	N/A	16.0	15.22	Front	10	0.059	1.197	0.071	0.071		27.5		
Hotspot	NR Band n77	100	N/A	C	0246M	1:1	-0.12	3930.00	662000	CW/SRS	N/A	16.0	15.22	Bottom	10	0.025	1.197	0.030	0.030		31.2		
Hotspot	NR Band n77 DoD	100	N/A	C	0246M	1:1	0.00	3500.01	633334	CW/SRS	N/A	16.0	14.24	Right	10	0.163	1.500	0.245	0.245		22.1		
Hotspot	NR Band n77	100	N/A	C	0246M	1:1	-0.02	3930.00	662000	CW/SRS	N/A	16.0	15.22	Right	10	0.151	1.197	0.181	0.181		23.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-121

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n77 DoD	100	I	0129M	1:1	0.03	3500.01	633334	CW/SRS	18.0	16.28	Back	10	0.043	1.486	0.064	0.064		29.9		
Body-worn/Hotspot	NR Band n77	100	I	0129M	1:1	-0.21	3930.00	662000	CW/SRS	18.0	16.94	Back	10	0.116	1.276	0.148	0.148		26.3		
Hotspot	NR Band n77	100	I	0129M	1:1	-0.10	3930.00	662000	CW/SRS	18.0	16.94	Front	10	0.092	1.276	0.117	0.117		27.3	26.3	17.0
Hotspot	NR Band n77	100	I	0129M	1:1	0.01	3930.00	662000	CW/SRS	18.0	16.94	Left	10	0.047	1.276	0.060	0.060		30.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram									

Table 12-122

Exposure	Band / Mode	Bandwidth [MHz]	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Waveform	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	NR Band n77 DoD	100	D	0246M	1:1	-0.03	3500.01	633334	CW/SRS	16.0	14.48	Back	10	0.175	1.419	0.248	0.248	0.155		22.0	22.0	15.0
Body-worn/Hotspot	NR Band n77	100	D	0246M	1:1	-0.03	3930.00	662000	CW/SRS	16.0	15.33	Back	10	0.138	1.167	0.161	0.161	0.101		23.9		
Hotspot	NR Band n77	100	D	0246M	1:1	0.05	3930.00	662000	CW/SRS	16.0	15.33	Front	10	0.007	1.167	0.008	0.008	0.005		36.9		
Hotspot	NR Band n77	100	D	0246M	1:1	0.06	3930.00	662000	CW/SRS	16.0	15.33	Bottom	10	0.037	1.167	0.043	0.043	0.027		29.6		
Hotspot	NR Band n77	100	D	0246M	1:1	0.09	3930.00	662000	CW/SRS	16.0	15.33	Left	10	0.001	1.167	0.001	0.001	0.001		45.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram										

12.28 2.4 GHz WIFI SISO Standalone SAR

Table 12-123

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	0.03	2412.00	1	1	17.0	16.52	Right Cheek	0	0.708	1.117	1.012	0.800	0.800	0.500		18.0		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	-0.01	2437.00	6	1	17.0	16.31	Right Cheek	0	0.751	1.172	1.012	0.890	0.890	0.556		17.5		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	0.03	2462.00	11	1	17.0	16.59	Right Cheek	0	0.773	1.099	1.012	0.859	0.859	0.537	A81	17.7	17.5	16.0
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	0.01	2462.00	11	1	17.0	16.59	Right Tilt	0	0.380	1.099	1.012	0.422	0.422	0.264		20.7		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	0.00	2462.00	11	1	17.0	16.59	Left Cheek	0	0.221	1.099	1.012	0.246	0.246	0.154		23.1		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0900M	98.85	0.02	2462.00	11	1	17.0	16.59	Left Tilt	0	0.135	1.099	1.012	0.150	0.150	0.094		25.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-124

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0900M	98.85	-0.02	2412.00	1	1	17.0	16.47	Right Cheek	0	0.410	1.130	1.012	0.469	0.469	0.293		20.3		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0900M	98.85	-0.05	2412.00	1	1	17.0	16.47	Right Tilt	0	0.051	1.130	1.012	0.058	0.058	0.036		29.3		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0900M	98.85	-0.01	2412.00	1	1	17.0	16.47	Left Cheek	0	0.472	1.130	1.012	0.540	0.540	0.338		19.7	19.7	16.0
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0900M	98.85	0.02	2412.00	1	1	17.0	16.47	Left Tilt	0	0.061	1.130	1.012	0.070	0.070	0.044		28.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-125

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0876M	98.85	-0.03	2462.00	11	1	19.0	18.51	Back	10	0.396	1.119	1.012	0.448	0.448	0.280		22.5		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0876M	98.85	0.01	2462.00	11	1	19.0	18.51	Front	10	0.224	1.119	1.012	0.254	0.254	0.159		25.0	20.8	18.0
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0876M	98.85	0.00	2462.00	11	1	19.0	18.51	Top	10	0.165	1.119	1.012	0.187	0.187	0.117		26.3		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	H	0876M	98.85	-0.01	2462.00	11	1	19.0	18.51	Left	10	0.582	1.119	1.012	0.659	0.659	0.412		20.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-126

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0876M	98.85	0.01	2462.00	11	1	19.0	18.26	Back	10	0.092	1.186	1.012	0.110	0.110	0.069		28.6		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0876M	98.85	-0.03	2462.00	11	1	19.0	18.26	Front	10	0.185	1.186	1.012	0.222	0.222	0.139		25.5	25.5	18.0
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0876M	98.85	0.16	2462.00	11	1	19.0	18.26	Top	10	0.005	1.186	1.012	0.006	0.006	0.004		41.2		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	J	0876M	98.85	-0.02	2462.00	11	1	19.0	18.26	Right	10	0.040	1.186	1.012	0.048	0.048	0.030		32.2		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram											

12.29 2.4 GHz WIFI MIMO Standalone SAR

Table 12-127

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0900M	98.85	-0.01	2412.00	1	6.5	17.0	16.52	17.0	16.47	Right Cheek	0	0.561	1.130	1.012	0.641	0.641	0.401		18.9		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0900M	98.85	-0.01	2412.00	1	6.5	17.0	16.52	17.0	16.47	Right Tilt	0	0.222	1.130	1.012	0.254	0.254	0.159		23.0	18.9	16.0
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0900M	98.85	-0.01	2412.00	1	6.5	17.0	16.52	17.0	16.47	Left Cheek	0	0.513	1.130	1.012	0.586	0.586	0.366		19.3		
Head	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0900M	98.85	0.04	2412.00	1	6.5	17.0	16.52	17.0	16.47	Left Tilt	0	0.137	1.130	1.012	0.157	0.157	0.098		25.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 20 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17 dBm.

Table 12-128

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0876M	98.85	-0.02	2462.00	11	6.5	19.0	18.51	19.0	18.26	Back	10	0.489	1.186	1.012	0.587	0.587	0.367	A82	21.3		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0876M	98.85	-0.03	2462.00	11	6.5	19.0	18.51	19.0	18.26	Front	10	0.255	1.186	1.012	0.306	0.306	0.191		24.1		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0876M	98.85	0.01	2462.00	11	6.5	19.0	18.51	19.0	18.26	Top	10	0.147	1.186	1.012	0.176	0.176	0.110		26.5	20.0	18.0
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0876M	98.85	0.10	2462.00	11	6.5	19.0	18.51	19.0	18.26	Right	10	0.083	1.186	1.012	0.100	0.100	0.063		29.0		
Hotspot	2.4 GHz WIFI/ IEEE 802.11b	20	DSSS	MIMO	0876M	98.85	0.00	2462.00	11	6.5	19.0	18.51	19.0	18.26	Left	10	0.652	1.186	1.012	0.783	0.783	0.489	A83	20.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 22 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 19 dBm.

12.30 5 GHz WIFI SISO Standalone SAR

Table 12-129

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.03	5290.00	58	U-NII-2A	29.3	16.5	15.48	Right Cheek	0	0.358	1.265	1.044	0.473	0.473	0.296		19.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.02	5610.00	122	U-NII-2C	29.3	16.5	15.61	Right Cheek	0	0.401	1.227	1.044	0.513	0.513	0.321		19.4		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.06	5775.00	155	U-NII-3	29.3	16.5	15.55	Right Cheek	0	0.477	1.245	1.044	0.620	0.620	0.388		18.6		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.00	5855.00	171	U-NII-4	29.3	16.5	15.52	Right Cheek	0	0.518	1.253	1.044	0.677	0.677	0.423		18.2		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.07	5290.00	58	U-NII-2A	29.3	16.5	15.48	Right Tilt	0	0.292	1.265	1.044	0.385	0.385	0.241		20.6		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.07	5610.00	122	U-NII-2C	29.3	16.5	15.61	Right Tilt	0	0.194	1.227	1.044	0.248	0.248	0.155		22.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.00	5775.00	155	U-NII-3	29.3	16.5	15.55	Right Tilt	0	0.198	1.245	1.044	0.257	0.257	0.161		22.4		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	-0.03	5855.00	171	U-NII-4	29.3	16.5	15.52	Right Tilt	0	0.212	1.253	1.044	0.277	0.277	0.173		22.1	18.2	15.5
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	-0.06	5290.00	58	U-NII-2A	29.3	16.5	15.48	Left Cheek	0	0.118	1.265	1.044	0.156	0.156	0.098		24.6		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.06	5610.00	122	U-NII-2C	29.3	16.5	15.61	Left Cheek	0	0.093	1.227	1.044	0.119	0.119	0.074		25.7		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.08	5775.00	155	U-NII-3	29.3	16.5	15.55	Left Cheek	0	0.074	1.245	1.044	0.096	0.096	0.060		26.7		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.02	5855.00	171	U-NII-4	29.3	16.5	15.52	Left Cheek	0	0.096	1.253	1.044	0.126	0.126	0.079		25.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	-0.10	5290.00	58	U-NII-2A	29.3	16.5	15.48	Left Tilt	0	0.097	1.265	1.044	0.128	0.128	0.080		25.4		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0854M	95.82	0.09	5610.00	122	U-NII-2C	29.3	16.5	15.61	Left Tilt	0	0.070	1.227	1.044	0.090	0.090	0.056		27.0		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.02	5775.00	155	U-NII-3	29.3	16.5	15.55	Left Tilt	0	0.045	1.245	1.044	0.058	0.058	0.036		28.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0845M	95.82	0.02	5855.00	171	U-NII-4	29.3	16.5	15.52	Left Tilt	0	0.064	1.253	1.044	0.084	0.084	0.053		27.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-130

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.04	5290.00	58	U-NII-2A	29.3	16.5	15.34	Right Cheek	0	0.362	1.306	1.043	0.493	0.493	0.308		19.6		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	-0.01	5690.00	138	U-NII-2C	29.3	16.5	15.73	Right Cheek	0	0.103	1.194	1.043	0.128	0.128	0.080		25.4		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.06	5775.00	155	U-NII-3	29.3	16.5	15.54	Right Cheek	0	0.102	1.247	1.043	0.133	0.133	0.083		25.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.05	5855.00	171	U-NII-4	29.3	16.5	15.42	Right Cheek	0	0.082	1.282	1.043	0.110	0.110	0.069		26.1		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	-0.03	5290.00	58	U-NII-2A	29.3	16.5	15.34	Right Tilt	0	0.422	1.306	1.043	0.575	0.575	0.359		18.9		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.07	5690.00	138	U-NII-2C	29.3	16.5	15.73	Right Tilt	0	0.115	1.194	1.043	0.143	0.143	0.089		24.9		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	-0.02	5775.00	155	U-NII-3	29.3	16.5	15.54	Right Tilt	0	0.096	1.247	1.043	0.125	0.125	0.078		25.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.03	5855.00	171	U-NII-4	29.3	16.5	15.42	Right Tilt	0	0.118	1.282	1.043	0.158	0.158	0.099		24.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.06	5290.00	58	U-NII-2A	29.3	16.5	15.34	Left Cheek	0	0.342	1.306	1.043	0.466	0.466	0.291		19.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	-0.02	5690.00	138	U-NII-2C	29.3	16.5	15.73	Left Cheek	0	0.265	1.194	1.043	0.330	0.330	0.206		21.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.03	5775.00	155	U-NII-3	29.3	16.5	15.54	Left Cheek	0	0.181	1.247	1.043	0.235	0.235	0.147		22.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	-0.09	5855.00	171	U-NII-4	29.3	16.5	15.42	Left Cheek	0	0.200	1.282	1.043	0.267	0.267	0.167		22.2		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.05	5290.00	58	U-NII-2A	29.3	16.5	15.34	Left Tilt	0	0.452	1.306	1.043	0.616	0.616	0.385		18.6		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.19	5690.00	138	U-NII-2C	29.3	16.5	15.73	Left Tilt	0	0.204	1.194	1.043	0.254	0.254	0.159		22.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.06	5775.00	155	U-NII-3	29.3	16.5	15.54	Left Tilt	0	0.169	1.247	1.043	0.220	0.220	0.138		23.1		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0854M	95.86	0.02	5855.00	171	U-NII-4	29.3	16.5	15.42	Left Tilt	0	0.144	1.282	1.043	0.193	0.193	0.121		23.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-131

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.07	5290.00	58	U-NII-2A	29.3	18.0	17.74	Back	10	0.162	1.062	1.044	0.180	0.285	0.178		25.5		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.12	5610.00	122	U-NII-2C	29.3	18.0	17.86	Back	10	0.219	1.033	1.044	0.236	0.374	0.234		24.3		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.00	5855.00	171	U-NII-4	29.3	18.0	17.91	Back	10	0.305	1.021	1.044	0.325	0.515	0.322		22.9		
Body-worn/Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.15	5775.00	155	U-NII-3	29.3	18.0	17.87	Back	10	0.277	1.030	1.044	0.298	0.472	0.295		23.3	22.5	20.0
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.04	5775.00	155	U-NII-3	29.3	18.0	17.87	Front	10	0.107	1.030	1.044	0.115	0.182	0.114		27.4		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.02	5775.00	155	U-NII-3	29.3	18.0	17.87	Top	10	0.075	1.030	1.044	0.081	0.128	0.080		28.9		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.02	5775.00	155	U-NII-3	29.3	18.0	17.87	Left	10	0.330	1.030	1.044	0.355	0.562	0.351		22.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-132

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.03	5290.00	58	U-NII-2A	29.3	18.0	17.59	Back	10	0.190	1.099	1.043	0.218	0.345	0.216		24.6		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.04	5690.00	138	U-NII-2C	29.3	18.0	17.57	Back	10	0.288	1.104	1.043	0.332	0.526	0.329		22.8		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.03	5855.00	171	U-NII-4	29.3	18.0	17.57	Back	10	0.383	1.104	1.043	0.441	0.699	0.437		21.6		
Body-worn/Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.02	5775.00	155	U-NII-3	29.3	18.0	17.75	Back	10	0.342	1.059	1.043	0.378	0.599	0.374		22.2	21.6	20.0
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.09	5775.00	155	U-NII-3	29.3	18.0	17.75	Front	10	0.030	1.059	1.043	0.033	0.053	0.033		32.8		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.05	5775.00	155	U-NII-3	29.3	18.0	17.75	Top	10	0.189	1.059	1.043	0.209	0.331	0.207		24.8		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.01	5775.00	155	U-NII-3	29.3	18.0	17.75	Right	10	0.048	1.059	1.043	0.053	0.084	0.053		30.8		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-133

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.07	5290.00	58	U-NII-2A	29.3	18.0	17.74	Back	0	0.803	1.062	1.044	0.890	1.410	0.353		22.5		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.04	5610.00	122	U-NII-2C	29.3	18.0	17.86	Back	0	1.020	1.033	1.044	1.100	1.743	0.436		21.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.01	5855.00	171	U-NII-4	29.3	18.0	17.91	Back	0	0.325	1.021	1.044	0.346	0.549	0.137		26.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.01	5290.00	58	U-NII-2A	29.3	18.0	17.74	Front	0	0.294	1.062	1.044	0.326	0.516	0.129		26.9		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.01	5610.00	122	U-NII-2C	29.3	18.0	17.86	Front	0	0.360	1.033	1.044	0.388	0.615	0.154		26.1		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.00	5855.00	171	U-NII-4	29.3	18.0	17.91	Front	0	0.310	1.021	1.044	0.330	0.523	0.131		26.8	20.1	20.0
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.01	5290.00	58	U-NII-2A	29.3	18.0	17.74	Top	0	0.105	1.062	1.044	0.116	0.184	0.046		31.3		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.10	5610.00	122	U-NII-2C	29.3	18.0	17.86	Top	0	0.145	1.033	1.044	0.156	0.248	0.062		30.0		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	-0.03	5855.00	171	U-NII-4	29.3	18.0	17.91	Top	0	0.205	1.021	1.044	0.218	0.346	0.087		28.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.00	5290.00	58	U-NII-2A	29.3	18.0	17.74	Left	0	1.030	1.062	1.044	1.142	1.809	0.452		21.4		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.03	5610.00	122	U-NII-2C	29.3	18.0	17.86	Left	0	1.420	1.033	1.044	1.531	2.426	0.607	A87	20.1		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	H	0876M	95.82	0.04	5855.00	171	U-NII-4	29.3	18.0	17.91	Left	0	1.370	1.021	1.044	1.460	2.313	0.578		20.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Table 12-134

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.03	5290.00	58	U-NII-2A	29.3	18.0	17.59	Back	0	0.460	1.099	1.043	0.527	0.836	0.209		24.8		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.11	5690.00	138	U-NII-2C	29.3	18.0	17.57	Back	0	0.552	1.104	1.043	0.636	1.008	0.252		23.9		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.00	5855.00	171	U-NII-4	29.3	18.0	17.57	Back	0	0.373	1.104	1.043	0.430	0.681	0.170		25.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.08	5290.00	58	U-NII-2A	29.3	18.0	17.59	Front	0	0.357	1.099	1.043	0.409	0.649	0.162		25.9		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.08	5690.00	138	U-NII-2C	29.3	18.0	17.57	Front	0	0.180	1.104	1.043	0.207	0.329	0.082		28.8		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.02	5855.00	171	U-NII-4	29.3	18.0	17.57	Front	0	0.608	1.104	1.043	0.700	1.110	0.278		23.5	23.5	20.0
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.03	5290.00	58	U-NII-2A	29.3	18.0	17.59	Top	0	0.220	1.099	1.043	0.252	0.400	0.100		28.0		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.05	5690.00	138	U-NII-2C	29.3	18.0	17.57	Top	0	0.210	1.104	1.043	0.242	0.383	0.096		28.1		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.02	5855.00	171	U-NII-4	29.3	18.0	17.57	Top	0	0.309	1.104	1.043	0.356	0.564	0.141		26.5		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	-0.08	5290.00	58	U-NII-2A	29.3	18.0	17.59	Right	0	0.039	1.099	1.043	0.045	0.071	0.018		35.5		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.07	5690.00	138	U-NII-2C	29.3	18.0	17.57	Right	0	0.076	1.104	1.043	0.088	0.139	0.035		32.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	E	0876M	95.86	0.15	5855.00	171	U-NII-4	29.3	18.0	17.57	Right	0	0.055	1.104	1.043	0.063	0.100	0.025		34.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

12.31 5 GHz WIFI MIMO Standalone SAR

Table 12-135

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.03	5290.00	58	U-NII-2A	58.5	16.5	15.58	16.5	15.43	Right Cheek	0	0.502	1.279	1.084	0.696	0.696	0.435		18.1		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.06	5690.00	138	U-NII-2C	58.5	16.5	15.68	16.5	15.83	Right Cheek	0	0.481	1.208	1.084	0.630	0.630	0.394		18.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.04	5775.00	155	U-NII-3	58.5	16.5	15.63	16.5	15.64	Right Cheek	0	0.499	1.222	1.084	0.661	0.661	0.413		18.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.01	5855.00	171	U-NII-4	58.5	16.5	15.59	16.5	15.57	Right Cheek	0	0.617	1.239	1.084	0.829	0.829	0.518	A84	17.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.01	5290.00	58	U-NII-2A	58.5	16.5	15.58	16.5	15.43	Right Tilt	0	0.474	1.279	1.084	0.657	0.657	0.411		18.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.05	5690.00	138	U-NII-2C	58.5	16.5	15.68	16.5	15.83	Right Tilt	0	0.229	1.208	1.084	0.300	0.300	0.188		21.7		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.05	5775.00	155	U-NII-3	58.5	16.5	15.63	16.5	15.64	Right Tilt	0	0.238	1.222	1.084	0.315	0.315	0.197		21.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.00	5855.00	171	U-NII-4	58.5	16.5	15.59	16.5	15.57	Right Tilt	0	0.257	1.239	1.084	0.345	0.345	0.216		21.1	17.3	15.5
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.03	5290.00	58	U-NII-2A	58.5	16.5	15.58	16.5	15.43	Left Cheek	0	0.309	1.279	1.084	0.429	0.429	0.268		20.2		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.08	5690.00	138	U-NII-2C	58.5	16.5	15.68	16.5	15.83	Left Cheek	0	0.271	1.208	1.084	0.355	0.355	0.222		21.0		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.04	5775.00	155	U-NII-3	58.5	16.5	15.63	16.5	15.64	Left Cheek	0	0.301	1.222	1.084	0.399	0.399	0.249		20.5		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.00	5855.00	171	U-NII-4	58.5	16.5	15.59	16.5	15.57	Left Cheek	0	0.310	1.239	1.084	0.417	0.417	0.261		20.3		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.02	5290.00	58	U-NII-2A	58.5	16.5	15.58	16.5	15.43	Left Tilt	0	0.421	1.279	1.084	0.584	0.584	0.365		18.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.01	5690.00	138	U-NII-2C	58.5	16.5	15.68	16.5	15.83	Left Tilt	0	0.141	1.208	1.084	0.185	0.185	0.116		23.8		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.00	5775.00	155	U-NII-3	58.5	16.5	15.63	16.5	15.64	Left Tilt	0	0.144	1.222	1.084	0.191	0.191	0.119		23.7		
Head	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.03	5855.00	171	U-NII-4	58.5	16.5	15.59	16.5	15.57	Left Tilt	0	0.186	1.239	1.084	0.250	0.250	0.156		22.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 19.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 16.5 dBm.

Table 12-136

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	-0.13	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Back	10	0.208	1.114	1.084	0.251	0.347	0.217		24.0		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.12	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Back	10	0.251	1.057	1.084	0.288	0.397	0.248		23.4		
Body-worn	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0876M	92.21	-0.17	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Back	10	0.541	1.114	1.084	0.654	0.902	0.564	A85	19.8		
Body-worn/Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.08	5775.00	155	U-NII-3	58.5	18.0	17.61	18.0	17.62	Back	10	0.375	1.094	1.084	0.445	0.614	0.384		21.5	19.8	19.4
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.03	5775.00	155	U-NII-3	58.5	18.0	17.61	18.0	17.62	Front	10	0.171	1.094	1.084	0.203	0.280	0.175		24.9		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.02	5775.00	155	U-NII-3	58.5	18.0	17.61	18.0	17.62	Top	10	0.234	1.094	1.084	0.278	0.383	0.239		23.6		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.01	5775.00	155	U-NII-3	58.5	18.0	17.61	18.0	17.62	Right	10	0.051	1.094	1.084	0.061	0.084	0.053		30.2		
Hotspot	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0854M	92.21	0.02	5775.00	155	U-NII-3	58.5	18.0	17.61	18.0	17.62	Left	10	0.496	1.094	1.084	0.588	0.812	0.508	A86	20.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 21 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18 dBm.

Table 12-137

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	U-NII band	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.03	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Back	0	0.899	1.114	1.084	1.086	1.498	0.375		21.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.07	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Back	0	1.010	1.057	1.084	1.158	1.598	0.400		21.3		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.03	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Back	0	1.220	1.114	1.084	1.474	2.035	0.509		20.3		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.09	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Front	0	0.511	1.114	1.084	0.617	0.852	0.213		24.1		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.05	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Front	0	0.656	1.057	1.084	0.752	1.038	0.260		23.2		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.06	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Front	0	0.623	1.114	1.084	0.753	1.039	0.260		23.2		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.07	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Top	0	0.164	1.114	1.084	0.198	0.273	0.068		29.0		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.03	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Top	0	0.272	1.057	1.084	0.312	0.430	0.108		27.0	20.3	19.4
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	-0.09	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Top	0	0.287	1.114	1.084	0.347	0.479	0.120		26.6		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.07	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Right	0	0.046	1.114	1.084	0.056	0.077	0.019		34.5		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.02	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Right	0	0.134	1.057	1.084	0.154	0.212	0.053		30.1		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.01	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Right	0	0.151	1.114	1.084	0.182	0.252	0.063		29.4		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.02	5290.00	58	U-NII-2A	58.5	18.0	17.53	18.0	17.70	Left	0	0.819	1.114	1.084	0.989	1.365	0.341		22.0		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.02	5530.00	106	U-NII-2C	58.5	18.0	17.76	18.0	17.90	Left	0	0.704	1.057	1.084	0.807	1.114	0.279		22.9		
Phablet	5 GHz WIFI/ IEEE 802.11ac	80	OFDM	MIMO	0845M	92.21	0.04	5855.00	171	U-NII-4	58.5	18.0	17.53	18.0	17.81	Left	0	1.120	1.114	1.084	1.353	1.868	0.467		20.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Note: To achieve the 21 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18 dBm.

12.32 6 GHz WIFI SISO Standalone SAR and APD

Table 12-138

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	5985.00	7	34	12.5	11.87	Right Cheek	0	0.194	1.156	1.004	0.225	0.225	0.141		19.0		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.07	6305.00	71	34	12.5	11.88	Right Cheek	0	0.145	1.153	1.004	0.168	0.168	0.105		20.3		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.04	6465.00	103	34	12.5	12.14	Right Cheek	0	0.103	1.086	1.004	0.112	0.112	0.070		22.0		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.05	6705.00	151	34	12.5	11.89	Right Cheek	0	0.226	1.151	1.004	0.261	0.261	0.163	A88	18.3		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.10	7025.00	215	34	12.5	11.51	Right Cheek	0	0.108	1.256	1.004	0.136	0.136	0.085		21.2		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.19	6465.00	103	34	12.5	12.14	Right Tilt	0	0.056	1.086	1.004	0.061	0.061	0.038		24.6		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	6465.00	103	34	12.5	12.14	Left Cheek	0	0.018	1.086	1.004	0.020	0.020	0.013		29.6		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.06	6465.00	103	34	12.5	12.14	Left Tilt	0	0.027	1.086	1.004	0.029	0.029	0.018		27.8	18.3	11.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-139

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²] (4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²] (4cm²)]	Plot #
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	5985.00	7	34	12.5	11.87	Right Cheek	0	1.060	1.156	1.004	1.225	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.07	6305.00	71	34	12.5	11.88	Right Cheek	0	0.847	1.153	1.004	0.977	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.04	6465.00	103	34	12.5	12.14	Right Cheek	0	0.646	1.086	1.004	0.702	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.05	6705.00	151	34	12.5	11.89	Right Cheek	0	1.230	1.151	1.004	1.416	A88
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.10	7025.00	215	34	12.5	11.51	Right Cheek	0	0.566	1.256	1.004	0.711	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.19	6465.00	103	34	12.5	12.14	Right Tilt	0	0.395	1.086	1.004	0.429	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	6465.00	103	34	12.5	12.14	Left Cheek	0	0.155	1.086	1.004	0.168	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.06	6465.00	103	34	12.5	12.14	Left Tilt	0	0.190	1.086	1.004	0.206	

Table 12-140

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.04	6465.00	103	34	12.5	12.14	Back	10	0.041	1.086	1.004	0.045	0.045	0.028		25.9	25.9	11.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-141

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²] (4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²] (4cm²)]	Plot #
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.04	6465.00	103	34	12.5	12.14	Back	10	0.345	1.086	1.004	0.376	

Table 12-142

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.04	6465.00	103	34	12.5	12.14	Back	0	0.182	1.086	1.004	0.198	0.198	0.050		23.5	18.2	11.5
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	6465.00	103	34	12.5	12.14	Front	0	0.102	1.086	1.004	0.111	0.111	0.028		26.0		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.13	6465.00	103	34	12.5	12.14	Top	0	0.047	1.086	1.004	0.051	0.051	0.013		29.4		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.01	5985.00	7	34	12.5	11.87	Left	0	0.469	1.156	1.004	0.544	0.544	0.136		19.1		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.10	6305.00	71	34	12.5	11.88	Left	0	0.395	1.153	1.004	0.457	0.457	0.114		19.9		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.02	6465.00	103	34	12.5	12.14	Left	0	0.470	1.086	1.004	0.512	0.512	0.128		19.4		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.01	6705.00	151	34	12.5	11.89	Left	0	0.583	1.151	1.004	0.673	0.673	0.168		18.2		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.03	7025.00	215	34	12.5	11.51	Left	0	0.188	1.256	1.004	0.237	0.237	0.059		22.7		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Table 12-143

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²] (4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²] (4cm²)]	Plot #
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.04	6465.00	103	34	12.5	12.14	Back	0	4.240	1.086	1.004	4.605	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.08	6465.00	103	34	12.5	12.14	Front	0	2.360	1.086	1.004	2.563	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.13	6465.00	103	34	12.5	12.14	Top	0	1.100	1.086	1.004	1.195	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.01	5985.00	7	34	12.5	11.87	Left	0	11.200	1.156	1.004	12.947	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.10	6305.00	71	34	12.5	11.88	Left	0	9.370	1.153	1.004	10.804	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.02	6465.00	103	34	12.5	12.14	Left	0	11.200	1.086	1.004	12.163	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	0.01	6705.00	151	34	12.5	11.89	Left	0	13.900	1.151	1.004	15.999	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	H	0900M	99.65	-0.03	7025.00	215	34	12.5	11.51	Left	0	4.450	1.256	1.004	5.589	

Table 12-144

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.08	6465.00	103	34	12.5	11.89	Right Cheek	0	0.003	1.151	1.003	0.003	0.003	0.002		37.1	19.3	11.5
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.02	6465.00	103	34	12.5	11.89	Right Tilt	0	0.004	1.151	1.003	0.005	0.005	0.003		35.9		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.17	6465.00	103	34	12.5	11.89	Left Cheek	0	0.128	1.151	1.003	0.148	0.148	0.093		20.8		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.06	5985.00	7	34	12.5	11.59	Left Tilt	0	0.090	1.233	1.003	0.111	0.111	0.069		22.0		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.06	6305.00	71	34	12.5	11.88	Left Tilt	0	0.181	1.153	1.003	0.209	0.209	0.131		19.3		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.03	6465.00	103	34	12.5	11.89	Left Tilt	0	0.085	1.151	1.003	0.098	0.098	0.061		22.6		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.13	6705.00	151	34	12.5	11.84	Left Tilt	0	0.064	1.164	1.003	0.075	0.075	0.047		23.8		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.08	7025.00	215	34	12.5	11.74	Left Tilt	0	0.069	1.191	1.003	0.082	0.082	0.051		23.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-145

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²] (4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²] (4cm²)]	Plot #
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.08	6465.00	103	34	12.5	11.89	Right Cheek	0	0.004	1.151	1.003	0.005	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.02	6465.00	103	34	12.5	11.89	Right Tilt	0	0.020	1.151	1.003	0.023	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.17	6465.00	103	34	12.5	11.89	Left Cheek	0	0.711	1.151	1.003	0.818	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.06	5985.00	7	34	12.5	11.59	Left Tilt	0	0.593	1.233	1.003	0.731	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.06	6305.00	71	34	12.5	11.88	Left Tilt	0	1.100	1.153	1.003	1.268	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.03	6465.00	103	34	12.5	11.89	Left Tilt	0	0.601	1.151	1.003	0.692	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.13	6705.00	151	34	12.5	11.84	Left Tilt	0	0.408	1.164	1.003	0.475	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.08	7025.00	215	34	12.5	11.74	Left Tilt	0	0.413	1.191	1.003	0.492	

Table 12-146

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.04	6465.00	103	34	12.5	11.89	Back	10	0.058	1.151	1.003	0.067	0.067	0.042	A89	24.2	24.2	11.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-147

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²(4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²(4cm²)]	Plot #
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.04	6465.00	103	34	12.5	11.89	Back	10	0.422	1.151	1.003	0.487	A89

Table 12-148

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.05	5985.00	7	34	12.5	11.59	Back	0	0.182	1.233	1.003	0.225	0.225	0.056		23.0		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.07	6305.00	71	34	12.5	11.88	Back	0	0.138	1.153	1.003	0.160	0.160	0.040		24.4		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.10	6465.00	103	34	12.5	11.89	Back	0	0.088	1.151	1.003	0.102	0.102	0.026		26.4		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.05	6705.00	151	34	12.5	11.84	Back	0	0.117	1.164	1.003	0.137	0.137	0.034		25.1	23.0	11.5
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.08	7025.00	215	34	12.5	11.74	Back	0	0.065	1.191	1.003	0.078	0.078	0.020		27.6		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.02	6465.00	103	34	12.5	11.89	Front	0	0.044	1.151	1.003	0.051	0.051	0.013		29.4		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.06	6465.00	103	34	12.5	11.89	Top	0	0.043	1.151	1.003	0.050	0.050	0.013		29.5		
Phablet	6 GHz WiFi/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.04	6465.00	103	34	12.5	11.89	Right	0	0.076	1.151	1.003	0.088	0.088	0.022		27.0		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Table 12-149

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²(4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²(4cm²)]	Plot #
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.05	5985.00	7	34	12.5	11.59	Back	0	4.190	1.233	1.003	5.166	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.07	6305.00	71	34	12.5	11.88	Back	0	3.180	1.153	1.003	3.667	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.10	6465.00	103	34	12.5	11.89	Back	0	1.970	1.151	1.003	2.267	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.05	6705.00	151	34	12.5	11.84	Back	0	2.700	1.164	1.003	3.143	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	-0.08	7025.00	215	34	12.5	11.74	Back	0	1.500	1.191	1.003	1.787	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.02	6465.00	103	34	12.5	11.89	Front	0	1.010	1.151	1.003	1.163	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.06	6465.00	103	34	12.5	11.89	Top	0	1.000	1.151	1.003	1.151	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	E	0900M	99.67	0.04	6465.00	103	34	12.5	11.89	Right	0	1.810	1.151	1.003	2.083	

12.33 6 GHz WIFI MIMO Standalone SAR and APD

Table 12-150

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.07	5985.00	7	68.1	12.5	11.98	12.5	11.74	Right Cheek	0	0.127	1.191	1.004	0.152	0.152	0.095		20.7		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.09	6305.00	71	68.1	12.5	12.03	12.5	12.03	Right Cheek	0	0.102	1.114	1.004	0.114	0.114	0.071		21.9		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.08	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right Cheek	0	0.127	1.138	1.004	0.145	0.145	0.091		20.9		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.05	6705.00	151	68.1	12.5	12.08	12.5	11.94	Right Cheek	0	0.168	1.138	1.004	0.192	0.192	0.120		19.7	19.7	11.5
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.02	7025.00	215	68.1	12.5	11.70	12.5	11.86	Right Cheek	0	0.088	1.202	1.004	0.106	0.106	0.066		22.2		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right Tilt	0	0.072	1.138	1.004	0.082	0.082	0.051		23.4		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.03	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left Cheek	0	0.088	1.138	1.004	0.100	0.100	0.063		22.5		
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left Tilt	0	0.076	1.138	1.004	0.087	0.087	0.054		23.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

Table 12-151

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²(4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²(4cm²)]	Plot #
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.07	5985.00	7	68.1	12.5	11.98	12.5	11.74	Right Cheek	0	0.750	1.191	1.004	0.893	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.09	6305.00	71	68.1	12.5	12.03	12.5	12.03	Right Cheek	0	0.578	1.114	1.004	0.644	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.08	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right Cheek	0	0.804	1.138	1.004	0.915	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.05	6705.00	151	68.1	12.5	12.08	12.5	11.94	Right Cheek	0	1.150	1.138	1.004	1.309	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.02	7025.00	215	68.1	12.5	11.70	12.5	11.86	Right Cheek	0	0.589	1.202	1.004	0.708	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right Tilt	0	0.450	1.138	1.004	0.512	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.03	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left Cheek	0	0.513	1.138	1.004	0.584	
Head	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left Tilt	0	0.407	1.138	1.004	0.463	

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

Table 12-152

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.08	6465.00	103	68.1	12.5	12.26	12.5	11.94	Back	10	0.057	1.138	1.004	0.065	0.065	0.041		24.3	24.3	11.5
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

Table 12-153

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²(4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²(4cm²)]	Plot #
Body-worn	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.08	6465.00	103	68.1	12.5	12.26	12.5	11.94	Back	10	0.421	1.138	1.004	0.481	

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

Table 12-154

Exposure	Band / Mode	Bandwidth [MHz]	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Tune state	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Back	0	0.183	N/A	1.138	1.004	0.209	0.209	0.052		23.3		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.17	6465.00	103	68.1	12.5	12.26	12.5	11.94	Front	0	0.114	N/A	1.138	1.004	0.130	0.130	0.033		25.3		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.03	6465.00	103	68.1	12.5	12.26	12.5	11.94	Top	0	0.045	N/A	1.138	1.004	0.051	0.051	0.013		29.4		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.18	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right	0	0.058	N/A	1.138	1.004	0.066	0.066	0.017		28.3		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.02	5985.00	7	68.1	12.5	11.98	12.5	11.74	Left	0	0.343	N/A	1.191	1.004	0.410	0.410	0.103		20.4	18.2	11.5
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.03	6305.00	71	68.1	12.5	12.03	12.5	12.03	Left	0	0.247	N/A	1.114	1.004	0.276	0.276	0.069		22.1		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.04	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left	0	0.389	N/A	1.138	1.004	0.444	0.444	0.111		20.0		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.05	6705.00	151	68.1	12.5	12.08	12.5	11.94	Left	0	0.591	N/A	1.138	1.004	0.675	0.675	0.169	A90	18.2		
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.03	7025.00	215	68.1	12.5	11.70	12.5	11.86	Left	0	0.205	N/A	1.202	1.004	0.247	0.247	0.062		22.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Phablet 4.0 W/kg (mW/g) averaged over 10 grams												

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

Table 12-155

Exposure	Band/ Mode	Bandwidth [MHz]	Service/ Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured APD [W/m²(4cm²)]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported APD [W/m²(4cm²)]	Plot #
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.07	6465.00	103	68.1	12.5	12.26	12.5	11.94	Back	0	4.220	1.138	1.004	4.802	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.17	6465.00	103	68.1	12.5	12.26	12.5	11.94	Front	0	2.680	1.138	1.004	3.050	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.03	6465.00	103	68.1	12.5	12.26	12.5	11.94	Top	0	1.040	1.138	1.004	1.184	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.18	6465.00	103	68.1	12.5	12.26	12.5	11.94	Right	0	1.380	1.138	1.004	1.570	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.02	5985.00	7	68.1	12.5	11.98	12.5	11.74	Left	0	8.100	1.191	1.004	9.647	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.03	6305.00	71	68.1	12.5	12.03	12.5	12.03	Left	0	5.840	1.114	1.004	6.506	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	0.04	6465.00	103	68.1	12.5	12.26	12.5	11.94	Left	0	9.220	1.138	1.004	10.492	
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.05	6705.00	151	68.1	12.5	12.08	12.5	11.94	Left	0	14.000	1.138	1.004	15.932	A90
Phablet	6 GHz WIFI/ IEEE 802.11ax	80	OFDM	MIMO	0900M	99.65	-0.03	7025.00	215	68.1	12.5	11.70	12.5	11.86	Left	0	4.830	1.202	1.004	5.806	

Note: To achieve the 15.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 12.5 dBm.

12.34 2.4 GHz Bluetooth SISO Standalone SAR

Table 12-156

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	0.19	2441.00	39	1	18.5	16.63	Right Cheek	0	0.241	1.539	1.025	0.380	0.380	0.238	A91	21.7		
Head	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	-0.07	2441.00	39	1	18.5	16.63	Right Tilt	0	0.105	1.539	1.025	0.166	0.166	0.104		25.3	21.7	16.5
Head	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	0.16	2441.00	39	1	18.5	16.63	Left Cheek	0	0.054	1.539	1.025	0.085	0.085	0.053		28.2		
Head	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	-0.07	2441.00	39	1	18.5	16.63	Left Tilt	0	0.040	1.539	1.025	0.063	0.063	0.039		29.5		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-157

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	0.03	2402.00	0	1	18.5	16.75	Right Cheek	0	0.141	1.497	1.025	0.216	0.216	0.135		24.1		
Head	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	0.03	2402.00	0	1	18.5	16.75	Right Tilt	0	0.012	1.497	1.025	0.018	0.018	0.011		34.8	23.4	16.5
Head	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	-0.17	2402.00	0	1	18.5	16.75	Left Cheek	0	0.168	1.497	1.025	0.258	0.258	0.161		23.4		
Head	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	0.03	2402.00	0	1	18.5	16.75	Left Tilt	0	0.017	1.497	1.025	0.026	0.026	0.016		33.3		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-158

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn/Hotspot	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	-0.04	2441.00	39	1	19.5	19.24	Back	10	0.150	1.062	1.025	0.163	0.333	0.208	A92	26.3		
Hotspot	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	-0.13	2441.00	39	1	19.5	19.24	Front	10	0.059	1.062	1.025	0.064	0.131	0.082		30.4		
Hotspot	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	-0.10	2441.00	39	1	19.5	19.24	Top	10	0.062	1.062	1.025	0.068	0.138	0.086		30.2		
Hotspot	2.4 GHz Bluetooth	FHSS	H	0854M	77.05	0.03	2441.00	39	1	19.5	19.24	Left	10	0.382	1.062	1.025	0.416	0.849	0.531	A93	22.3	22.3	21.6
Hotspot	2.4 GHz Bluetooth LE	DSSS	H	0854M	84.76	-0.01	2440.00	19	1	19.5	19.16	Left	10	0.255	1.081	1.015	0.280	0.533	0.333		24.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-159

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	-0.08	2402.00	0	1	19.5	19.29	Back	10	0.059	1.050	1.025	0.064	0.259	0.162		30.5	30.5	24.6
Body-worn	2.4 GHz Bluetooth LE	DSSS	J	0854M	84.48	0.04	2402.00	0	1	19.5	19.11	Back	10	0.002	1.094	1.018	0.002	0.008	0.005		45.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 12-160

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	0.02	2402.00	0	1	19.5	19.29	Back	0	0.086	1.050	1.025	0.093	0.377	0.094		32.7	25.8	24.6
Phablet	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	-0.12	2402.00	0	1	19.5	19.29	Front	0	0.421	1.050	1.025	0.453	1.845	0.461	A94	25.8		
Phablet	2.4 GHz Bluetooth LE	DSSS	J	0854M	84.48	0.02	2402.00	0	1	19.5	19.11	Front	0	0.003	1.094	1.018	0.003	0.013	0.003		47.5		
Phablet	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	-0.11	2402.00	0	1	19.5	19.29	Top	0	0.039	1.050	1.025	0.042	0.171	0.043		36.2		
Phablet	2.4 GHz Bluetooth	FHSS	J	0854M	77.07	0.04	2402.00	0	1	19.5	19.29	Right	0	0.000	1.050	1.025	0.000	0.000	0.000		62.1		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

12.35 2.4 GHz Bluetooth MIMO Standalone SAR

Table 12-161

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Head	2.4 GHz Bluetooth	FHSS	MIMO	0854M	77.07	0.04	2480.00	78	1	14.0	13.70	14.0	13.00	Right Cheek	0	0.140	1.259	1.025	0.181	0.181	0.113		20.4	20.4	12.0
Head	2.4 GHz Bluetooth	FHSS	MIMO	0854M	77.07	0.01	2480.00	78	1	14.0	13.70	14.0	13.00	Right Tilt	0	0.086	1.259	1.025	0.111	0.111	0.069		22.5		
Head	2.4 GHz Bluetooth	FHSS	MIMO	0854M	77.07	0.08	2480.00	78	1	14.0	13.70	14.0	13.00	Left Cheek	0	0.098	1.259	1.025	0.126	0.126	0.079		22.0		
Head	2.4 GHz Bluetooth	FHSS	MIMO	0854M	77.07	0.08	2480.00	78	1	14.0	13.70	14.0	13.00	Left Tilt	0	0.017	1.259	1.025	0.022	0.022	0.014		29.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 17 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14 dBm.

Table 12-162

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 1g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 1g SAR [W/kg]	Adjusted 1g SAR [W/kg]	Exposure Ratio (1g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Body-worn	2.4 GHz Bluetooth	FHSS	MIMO	0854M	77.07	-0.04	2402.00	0	1	14.5	13.21	14.5	14.37	Back	10	0.032	1.346	1.025	0.044	0.153	0.096		27.0	27.0	18.9
Body-worn	2.4 GHz Bluetooth LE	DSSS	MIMO	0854M	84.57	0.09	2402.00	0	1	14.5	13.66	14.5	14.42	Back	10	0.014	1.213	1.017	0.017	0.056	0.035		31.4		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 17.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.5 dBm.

Table 12-163

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle [%]	Power Drift [dB]	Frequency [MHz]	Channel #	Data Rate [Mbps]	Max Allowed Power [dBm]	Conducted Power [dBm]	Max Allowed Power (2nd ant) [dBm]	Conducted Power (2nd ant) [dBm]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Power Scaling Factor	Duty Cycle Scaling Factor	Reported 10g SAR [W/kg]	Adjusted 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #	Plimit [dBm]	Overall Plimit [dBm]	EFS Plimit [dBm]
Phablet	2.4 GHz Bluetooth	FHSS	MIMO	0900M	77.07	-0.04	2402.00	0	1	14.5	13.21	14.5	14.37	Back	0	0.144	1.346	1.025	0.199	0.689	0.172		24.4	24.4	18.9
Phablet	2.4 GHz Bluetooth LE	DSSS	MIMO	0900M	84.57	-0.03	2402.00	0	1	14.5	13.66	14.5	14.42	Back	0	0.124	1.213	1.017	0.153	0.495	0.124		25.9		
Phablet	2.4 GHz Bluetooth	FHSS	MIMO	0900M	77.07	0.02	2402.00	0	1	14.5	13.21	14.5	14.37	Front	0	0.132	1.346	1.025	0.182	0.631	0.158		24.8		
Phablet	2.4 GHz Bluetooth	FHSS	MIMO	0900M	77.07	0.02	2402.00	0	1	14.5	13.21	14.5	14.37	Top	0	0.054	1.346	1.025	0.075	0.258	0.065		28.7		
Phablet	2.4 GHz Bluetooth	FHSS	MIMO	0900M	77.07	0.14	2402.00	0	1	14.5	13.21	14.5	14.37	Right	0	0.012	1.346	1.025	0.017	0.057	0.014		35.2		
Phablet	2.4 GHz Bluetooth	FHSS	MIMO	0900M	77.07	0.08	2402.00	0	1	14.5	13.21	14.5	14.37	Left	0	0.139	1.346	1.025	0.192	0.665	0.166		24.6		
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Note: To achieve the 17.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.5 dBm.

12.36 UWB Standalone SAR

Table 12-164

Exposure	Band / Mode	Service / Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #
Phablet	UWB	CW	1	0129M	1:1	0.06	6489.60	5	Back	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.08	7987.20	9	Back	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.07	6489.60	5	Front	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.05	7987.20	9	Front	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.01	6489.60	5	Top	0	0.001	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.01	7987.20	9	Top	0	0.001	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.00	6489.60	5	Right	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.05	7987.20	9	Right	0	0.000	0.000	
Phablet	UWB	CW	1	0129M	1:1	0.05	6489.60	5	Left	0	0.002	0.001	A96
Phablet	UWB	CW	1	0129M	1:1	0.14	7987.20	9	Left	0	0.000	0.000	
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams				

Table 12-165

Exposure	Band/ Mode	Service/ Modulation	Ant.	Serial Number	Duty Cycle	Power Drift [dB]	Frequency [MHz]	Channel #	Test Position	Spacing [mm]	Measured APD [W/m² (4cm²)]	Plot #
Phablet	UWB	CW	1	0129M	1:1	0.06	6489.60	5	Back	0	0.010	
Phablet	UWB	CW	1	0129M	1:1	0.08	7987.20	9	Back	0	0.002	
Phablet	UWB	CW	1	0129M	1:1	0.07	6489.60	5	Front	0	0.004	
Phablet	UWB	CW	1	0129M	1:1	0.05	7987.20	9	Front	0	0.017	
Phablet	UWB	CW	1	0129M	1:1	0.01	6489.60	5	Top	0	0.030	
Phablet	UWB	CW	1	0129M	1:1	0.01	7987.20	9	Top	0	0.027	
Phablet	UWB	CW	1	0129M	1:1	0.00	6489.60	5	Right	0	0.015	
Phablet	UWB	CW	1	0129M	1:1	0.05	7987.20	9	Right	0	0.017	
Phablet	UWB	CW	1	0129M	1:1	0.05	6489.60	5	Left	0	0.046	A96
Phablet	UWB	CW	1	0129M	1:1	0.14	7987.20	9	Left	0	0.003	

12.37 NFC Standalone SAR

Table 12-166

Band / Mode	Signal Type	Power Drift [dB]	Frequency [MHz]	Test Position	Spacing [mm]	Measured 10g SAR [W/kg]	Exposure Ratio (10g SAR)	Plot #
NFC	B	-0.11	13.60	Back	0	0.012	0.003	A95
NFC	B	0.01	13.60	Front	0	0.000	0.000	
NFC	B	0.04	13.60	Top	0	0.000	0.000	
NFC	B	0.06	13.60	Left	0	0.000	0.000	
ANSI/IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population				Phablet 4.0 W/kg (mW/g) averaged over 10 grams				

SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D01v06r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was ≤ 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were required.
8. Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 14 for variability analysis.
9. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated (See Section 7.7 for more details).
10. Per FCC KDB Publication 648474 D01v06r03, this device is considered a "phablet" since the display diagonal dimension is > 150 mm and < 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.
11. This device supports dynamic antenna tuning for some bands. Per FCC Guidance, SAR was measured according to the normally required SAR measurement configurations with tuner active. The auto-tune state determined by the device was verified before and after each SAR measurement and is listed in tables above. Please see Section 15 for supplemental data.
12. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the 1g thresholds for the equivalent test cases.
13. This device uses Qualcomm Smart Transmit for WWAN/WLAN/BT operations to control and manage transmitting power in real time to ensure RF Exposure compliance. Per FCC Guidance, compliance for was assessed at the minimum of the time averaged power and the maximum output power for each band/mode/exposure condition (DSI).
14. Per October 2020 TCB Workshop notes, absorbed power density (APD) using a 4cm2 averaging area is reported based on SAR measurements.

GSM Test Notes:

1. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.
3. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

UMTS Notes:

1. UMTS mode was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
2. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s).

LTE Notes:

1. LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 9.5.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D01v06, when the reported 1g SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for LTE B41/48, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.
6. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.
7. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see Section 15 for linearity results.
8. For LTE Band 66, LTE Band 48, and LTE Band 41, per FCC guidance, SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active. The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.
9. This device supports LTE Band 41 ULCA active with Power Class 2. Highest SAR test configuration for each exposure condition in Power Class 3 with ULCA active was repeated with Power Class 2 with ULCA active.

NR Notes:

1. NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR FR1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR TDD was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (Serial Number can be found in the bibliography).
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.

5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. Per FCC KDB Publication 447498 D01v06, when the reported NR Band n77 C-Band SAR measured at the highest output power channel in a given a test configuration was > 0.4 W/kg for 1g evaluations and > 1 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
7. Per FCC KDB Publication 447498 D01v06, when the reported NR Band n41/48 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations and > 1.5 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
8. SRS was tested with CW signal per Qualcomm guidance in 80-w2112-4.
9. For final implementation, NR Band n38, n41, n48 and n77 slot configuration is synchronized using maximum duty cycle of 100%. SAR testing was performed using FTM mode with a 100% duty cycle applied to match final duty cycle.
10. Per FCC Guidance, C-Band for NR n77 (3705 – 3975 MHz) was fully tested according to FCC procedures. For each exposure condition and antenna, the worst-case position was additionally evaluated for the NR n77 DoD (3455.01 – 3544.98 MHz).
11. This device uses two transmit pathways for n41 operations (Path 1 and Path 2). For each exposure condition, the pathway with the highest target power was fully evaluated. The worst case for each antenna and exposure condition was additionally evaluated using the other path.

WLAN Notes:

1. For held-to-ear, hotspot, and phablet operations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g evaluations, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n/ax) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 9.6.5 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 9.6.6 for more information.
4. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Multi-TX and Antenna SAR Considerations Appendix for complete analysis.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
7. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.
8. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factor for WIFI 6E. Per October 2020 TCB Workshop notes, 5 channels were tested for WIFI 6E.

Bluetooth Notes

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 79% transmission duty factor for Bluetooth and 87% transmission duty factor for Bluetooth LE to determine compliance. See RF Conducted Power Section for the time domain plot and calculation for the duty factor of the device.
2. Head and Hotspot Bluetooth SAR were evaluated for BT BDR tethering applications.
3. The highest frame average power configurations for both Bluetooth and Bluetooth LE were evaluated for SAR. The worst case configuration was used for the remaining test positions as the most conservative scenario.

UWB Notes:

1. UWB was evaluated for phablet based on expected usage conditions.
2. Per FCC guidance, SAR was performed using 6.5 GHz/8GHz probe calibration factor for UWB.

13 POWER DENSITY DATA SUMMARY

13.1 6 GHz WIFI Power Density Results

Table 13-1

MEASUREMENT RESULTS																									
Frequency (MHz)	Channel	Mode	Service	Bandwidth (MHz)	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift (dB)	Spacing (mm)	Antenna Config.	DUT Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Grid Step (λ)	iPD (W/m²)	Scaling Factor for Measurement Uncertainty per IEC 62479	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Normal psPD (W/m²)	Scaled Normal psPD (W/m²)	Total psPD (W/m²)	Scaled Total psPD (W/m²)	Plot #
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	-0.10	2	MIMO	WL0854M	68.1	Back	99.65	0.125	-	1.554	1.094	1.004	2.320	3.960	2.560	4.370	
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	0.00	2	MIMO	WL0854M	68.1	Front	99.65	0.125	-	1.554	1.094	1.004	0.743	1.268	0.981	1.674	
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	-0.04	2	MIMO	WL0854M	68.1	Top	99.65	0.125	-	1.554	1.138	1.004	0.995	1.767	1.110	1.971	
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	-0.15	2	MIMO	WL0854M	68.1	Right	99.65	0.125	-	1.554	1.138	1.004	0.534	0.948	0.690	1.225	
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	-0.09	2	MIMO	WL0854M	68.1	Left	99.65	0.125	1.590	1.554	1.138	1.004	2.200	3.906	2.770	4.918	
5985.00	7	802.11ax	OFDM	80	12.50	11.98	12.50	11.74	-0.05	2	MIMO	WL0854M	68.1	Left	99.65	0.125	-	1.554	1.191	1.004	2.210	4.107	2.690	4.999	
6305.00	71	802.11ax	OFDM	80	12.50	12.03	12.50	12.03	0.01	2	MIMO	WL0854M	68.1	Left	99.65	0.125	-	1.554	1.114	1.004	2.740	4.782	3.290	5.718	
6705.00	151	802.11ax	OFDM	80	12.50	12.08	12.50	11.94	0.01	2	MIMO	WL0854M	68.1	Left	99.65	0.125	-	1.554	1.138	1.004	3.100	5.504	3.720	6.605	A97
7025.00	215	802.11ax	OFDM	80	12.50	11.70	12.50	11.86	-0.03	2	MIMO	WL0854M	68.1	Left	99.65	0.125	-	1.554	1.202	1.004	0.475	0.891	0.783	1.468	
6465.00	103	802.11ax	OFDM	80	12.50	12.26	12.50	11.94	-0.03	9.27	MIMO	WL0854M	68.1	Left	99.65	0.125	1.490	1.554	1.138	1.004	0.757	1.344	0.897	1.593	
6465.00	103	802.11ax	OFDM	80	12.50	12.14	-	-	0.06	2	H	WL0854M	34.0	Back	99.65	0.125	-	1.554	1.086	1.004	1.550	2.626	1.700	2.880	
6465.00	103	802.11ax	OFDM	80	12.50	12.14	-	-	-0.06	2	H	WL0854M	34.0	Front	99.65	0.125	-	1.554	1.086	1.004	0.704	1.193	0.766	1.298	
6465.00	103	802.11ax	OFDM	80	12.50	12.14	-	-	-0.04	2	H	WL0854M	34.0	Top	99.65	0.125	-	1.554	1.086	1.004	0.481	0.815	0.861	1.459	
6465.00	103	802.11ax	OFDM	80	12.50	12.14	-	-	-0.03	2	H	WL0854M	34.0	Left	99.65	0.125	2.360	1.554	1.086	1.004	1.930	3.270	2.460	4.168	
5985.00	7	802.11ax	OFDM	80	12.50	11.87	-	-	-0.11	2	H	WL0854M	34.0	Left	99.65	0.125	-	1.554	1.156	1.004	3.040	5.483	3.480	6.277	
6305.00	71	802.11ax	OFDM	80	12.50	11.88	-	-	-0.09	2	H	WL0854M	34.0	Left	99.65	0.125	-	1.554	1.153	1.004	1.170	2.105	2.400	4.317	
6705.00	151	802.11ax	OFDM	80	12.50	11.89	-	-	-0.10	2	H	WL0854M	34.0	Left	99.65	0.125	-	1.554	1.151	1.004	0.616	1.106	0.865	1.553	
7025.00	215	802.11ax	OFDM	80	12.50	11.51	-	-	-0.04	2	H	WL0854M	34.0	Left	99.65	0.125	-	1.554	1.256	1.004	1.120	2.195	1.280	2.508	
6465.00	103	802.11ax	OFDM	80	12.50	12.14	-	-	0.07	9.27	H	WL0854M	34.0	Left	99.65	0.125	1.640	1.554	1.086	1.004	1.030	1.745	1.260	2.135	
6465.00	103	802.11ax	OFDM	80	-	-	12.50	11.89	0.09	2	E	WL0854M	34.0	Back	99.67	0.125	-	1.554	1.151	1.003	0.674	1.568	1.310	2.350	
6465.00	103	802.11ax	OFDM	80	-	-	12.50	11.89	-0.05	2	E	WL0854M	34.0	Front	99.67	0.125	-	1.554	1.151	1.003	0.286	0.513	0.516	0.926	
6465.00	103	802.11ax	OFDM	80	-	-	12.50	11.89	-0.18	2	E	WL0854M	34.0	Top	99.67	0.125	-	1.554	1.151	1.003	0.598	1.073	0.633	1.136	
6465.00	103	802.11ax	OFDM	80	-	-	12.50	11.89	-0.04	2	E	WL0854M	34.0	Right	99.67	0.125	-	1.554	1.151	1.003	0.403	0.723	0.471	0.845	
5985.00	7	802.11ax	OFDM	80	-	-	12.50	11.59	0.20	2	E	WL0854M	34.0	Back	99.67	0.125	-	1.554	1.233	1.003	2.330	4.478	2.730	5.247	
6305.00	71	802.11ax	OFDM	80	-	-	12.50	11.88	0.03	2	E	WL0854M	34.0	Back	99.67	0.125	-	1.554	1.153	1.003	1.120	2.013	1.420	2.552	
6705.00	151	802.11ax	OFDM	80	-	-	12.50	11.84	-0.18	2	E	WL0854M	34.0	Back	99.67	0.125	-	1.554	1.164	1.003	0.805	1.460	1.270	2.304	
7025.00	215	802.11ax	OFDM	80	-	-	12.50	11.74	-0.10	2	E	WL0854M	34.0	Back	99.67	0.125	1.370	1.554	1.191	1.003	2.530	4.697	3.030	5.625	
7025.00	215	802.11ax	OFDM	80	-	-	12.50	11.74	0.05	8.54	E	WL0854M	34.0	Back	99.67	0.125	0.829	1.554	1.191	1.003	1.050	1.949	1.190	2.209	
47 CFR §1.1310 - SAFETY LIMIT Spatial Average Uncontrolled Exposure / General Population																		Power Density 10 W/m² averaged over 4 cm²							

13.2 UWB Power Density Results

Table 13-2

MEASUREMENT RESULTS														
Frequency (MHz)	Channel	Mode	Power Drift (dB)	Spacing (mm)	DUT Serial Number	Side	Grid Step (λ)	iPD (W/m²)	Scaling Factor for Measurement Uncertainty per IEC 62479	Normal psPD (W/m²)	Scaled Normal psPD (W/m²)	Total psPD (W/m²)	Scaled Total psPD (W/m²)	Plot #
6489.60	5	CW	0.05	2	WHV0079M	Back	0.125	-	1.554	0.372	0.578	0.406	0.631	A98
6489.60	5	CW	0.06	2	WHV0079M	Front	0.125	-	1.554	0.132	0.205	0.139	0.216	
6489.60	5	CW	-0.04	2	WHV0079M	Left	0.125	0.449	1.554	0.238	0.370	0.242	0.376	
7987.20	9	CW	0.13	2	WHV0079M	Back	0.125	-	1.554	0.179	0.278	0.206	0.320	
7987.20	9	CW	-0.05	2	WHV0079M	Front	0.125	-	1.554	0.166	0.258	0.172	0.267	
7987.20	9	CW	0.06	2	WHV0079M	Left	0.125	-	1.554	0.170	0.264	0.174	0.270	
6489.60	5	CW	0.06	9.24	WHV0079M	Left	0.125	0.453	1.554	0.122	0.190	0.133	0.207	
47 CFR §1.1310 - SAFETY LIMIT Spatial Average Uncontrolled Exposure / General Population					Power Density 10 W/m² averaged over 4 cm²									

Power Density General Notes

1. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Batteries are fully charged at the beginning of the measurements. The DUT was connected to a wall charger for some measurements due to the test duration. It was confirmed that the charger plugged into this DUT did not impact the near-field PD test results.
3. Power density was calculated by repeated E-field measurements on two measurement planes separated by λ/4.
4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
5. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.68 dB (85.4%) was used to determine the psPD measurement scaling factor.
6. Per equipment manufacturer guidance, power density was measured at d=2mm and d=λ/5mm using the same grid size and grid step size for some frequencies and surfaces. The integrated Power Density (iPD) was calculated based on these measurements. Since iPD ratio between the two distances is ≥ -1dB, the grid step was sufficient for determining compliance at d=2mm.
7. psPD for MIMO was evaluated by making a measurement with both antennas transmitting simultaneously.
8. PTP-PR algorithm was used during psPD measurement and calculations.
9. PD results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04.

14 SAR MEASUREMENT VARIABILITY

14.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5) When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 14-1
Head SAR Measurement Variability Results

HEAD VARIABILITY RESULTS															
Band	FREQUENCY		Mode	Service	Side	Test Position	Antenna Config	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.						(W/kg)	(W/kg)		(W/kg)		(W/kg)	
835	846.60	4233	UMTS 850	RMC	Left	Cheek	E	0.884	0.868	1.02	N/A	N/A	N/A	N/A
1900	1905.00	26590	LTE Band 25 (PCS), 20 MHz Bandwidth	QPSK, 1 RB, 50 RB Offset	Right	Tilt	F	1.020	1.000	1.02	N/A	N/A	N/A	N/A
2450	2510.00	20850	LTE Band 7, 20 MHz Bandwidth	QPSK, 50 RB, 50 RB Offset	Right	Cheek	F	0.856	0.829	1.03	N/A	N/A	N/A	N/A
2600	2592.99	518598	NR Band 41 Path 1, 100 MHz Bandwidth	DFT-S-OFDM, QPSK, 1 RB, 137 RB Offset	Right	Tilt	F	0.914	0.880	1.04	N/A	N/A	N/A	N/A
3500	3560.00	55340	LTE Band 48, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	Right	Tilt	F	0.982	0.961	1.02	N/A	N/A	N/A	N/A
3700	3750.00	650000	NR Band 77, 100 MHz Bandwidth	DFT-S-OFDM, QPSK, 1 RB, 1 RB Offset	Right	Tilt	F	0.969	0.929	1.04	N/A	N/A	N/A	N/A
3900	3930.00	662000	NR Band 77, 100 MHz Bandwidth	DFT-S-OFDM, QPSK, 1 RB, 1 RB Offset	Right	Tilt	F	0.903	0.819	1.10	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 14-2
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Side	Spacing	Antenna Config	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.						(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1770.00	132572	LTE Band 66 (AWS), 20 MHz Bandwidth	QPSK, 50 RB, 25 RB Offset	Bottom	10	A	1.000	0.984	1.02	N/A	N/A	N/A	N/A
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 1 RB, 25 RB Offset	Bottom	10	A	0.939	0.808	1.16	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					Body 1.6 W/kg (mW/g) averaged over 1 gram									

14.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g and <3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

15 ADDITIONAL TESTING PER FCC GUIDANCE

15.1 Tuner Testing

Per April 2019 TCB Workshop Notes, the following test procedures were followed to demonstrate that the SAR results in Section 11 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other than impedance matching.

To evaluate all the tuner states, the 144 tuner states were divided among the aggregate band, mode and exposure combinations. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest measured SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band/mode/exposure condition, point SAR measurements were made for all 144 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

Table 15-1
UMTS Supplemental Head SAR Data

UMTS B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	836.60	Frequency (MHz)	1752.60	Frequency (MHz)	1907.60
Channel	4183	Channel	1513	Channel	9538
Measured 1g SAR (W/kg)	0.080	Measured 1g SAR (W/kg)	0.083	Measured 1g SAR (W/kg)	0.045
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 140)	0.106	Auto-tune (State 32)	0.090	Auto-tune (State 99)	0.047
Default (State 0)	0.097	Default (State 32)	0.086	Default (State 0)	0.041
State 0	0.097	State 1	0.059	State 2	0.036
State 75	0.023	State 32	0.086	State 73	0.034
State 76	0.013	State 74	0.058	State 78	0.012
State 110	0.000	State 77	0.037	State 99	0.048
State 134	0.081	State 111	0.031	State 112	0.008
State 135	0.040	State 133	0.082	State 132	0.041
State 140	0.111	State 136	0.011	State 137	0.009

Table 15-2
LTE Supplemental Head SAR Data

LTE B71		LTE B12		LTE B13		LTE B14		LTE B26		LTE B66		LTE B25	
QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 36 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset	
Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00	Frequency (MHz)	831.50	Frequency (MHz)	1720.00	Frequency (MHz)	1905.00
Channel	133297	Channel	23095	Channel	23230	Channel	23330	Channel	26865	Channel	132072	Channel	26590
Measured 1g SAR (W/kg)	0.121	Measured 1g SAR (W/kg)	0.155	Measured 1g SAR (W/kg)	0.129	Measured 1g SAR (W/kg)	0.150	Measured 1g SAR (W/kg)	0.087	Measured 1g SAR (W/kg)	0.114	Measured 1g SAR (W/kg)	0.109
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.145	Auto-tune (State 134)	0.202	Auto-tune (State 0)	0.136	Auto-tune (State 0)	0.163	Auto-tune (State 140)	0.114	Auto-tune (State 32)	0.092	Auto-tune (State 33)	0.124
Default (State 0)	0.140	Default (State 0)	0.159	Default (State 0)	0.144	Default (State 0)	0.155	Default (State 0)	0.112	Default (State 32)	0.112	Default (State 0)	0.098
State 0	0.140	State 7	0.086	State 0	0.144	State 0	0.155	State 11	0.036	State 12	0.044	State 13	0.036
State 6	0.099	State 68	0.168	State 8	0.110	State 9	0.100	State 19	0.061	State 32	0.112	State 33	0.113
State 69	0.146	State 83	0.106	State 67	0.142	State 66	0.132	State 64	0.026	State 63	0.000	State 62	0.000
State 82	0.128	State 122	0.050	State 84	0.103	State 85	0.089	State 87	0.028	State 81	0.009	State 80	0.114
State 128	0.143	State 127	0.001	State 105	0.074	State 86	0.083	State 121	0.060	State 88	0.008	State 89	0.008
State 129	0.071	State 134	0.190	State 126	0.009	State 125	0.019	State 123	0.029	State 112	0.018	State 121	0.016
State 141	0.096	State 142	0.149	State 143	0.076	State 142	0.134	State 140	0.118	State 139	0.019	State 138	0.015

Table 15-3
NR Supplemental Head SAR Data

NR Band n71		NR Band n12		NR Band n26		NR Band n70		NR Band n66		NR Band n25	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 104 RB Offset		DFT-s-OFDM QPSK, 15 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 53 RB Offset		DFTS-OFDM QPSK, 15 MHz Bandwidth, 36 RB, 22 RB Offset		DFT-s-OFDM QPSK, 40 MHz Bandwidth, 108 RB, 54 RB Offset		DFT-s-OFDM QPSK, 40 MHz Bandwidth, 108 RB, 54 RB Offset	
Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	831.50	Frequency (MHz)	1702.50	Frequency (MHz)	1745.00	Frequency (MHz)	1882.50
Channel	136100	Channel	141500	Channel	166300	Channel	340500	Channel	349000	Channel	376500
Measured 1g SAR (W/kg)	0.131	Measured 1g SAR (W/kg)	0.143	Measured 1g SAR (W/kg)	0.091	Measured 1g SAR (W/kg)	0.035	Measured 1g SAR (W/kg)	0.110	Measured 1g SAR (W/kg)	0.143
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 128)	0.141	Auto-tune (State 65)	0.149	Auto-tune (State 140)	0.124	Auto-tune (State 32)	0.036	Auto-tune (State 32)	0.115	Auto-tune (State 33)	0.158
Default (State 0)	0.131	Default (State 0)	0.134	Default (State 0)	0.100	Default (State 32)	0.039	Default (State 32)	0.119	Default (State 0)	0.149
State 14	0.013	State 15	0.003	State 21	0.049	State 16	0.003	State 17	0.013	State 18	0.028
State 61	0.006	State 60	0.006	State 59	0.034	State 32	0.039	State 32	0.119	State 33	0.160
State 79	0.015	State 65	0.135	State 71	0.074	State 59	0.001	State 58	0.011	State 53	0.036
State 90	0.057	State 72	0.104	State 97	0.086	State 70	0.027	State 65	0.106	State 57	0.027
State 120	0.073	State 91	0.039	State 118	0.081	State 92	0.000	State 93	0.003	State 94	0.004
State 128	0.132	State 119	0.070	State 135	0.042	State 118	0.005	State 117	0.022	State 116	0.040
State 137	0.099	State 136	0.093	State 140	0.113	State 135	0.031	State 134	0.113	State 133	0.162

Table 15-4
UMTS Supplemental Body SAR Data

UMTS B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.60	Frequency (MHz)	1752.60	Frequency (MHz)	1907.60
Channel	4183	Channel	1513	Channel	9538
Measured 1g SAR (W/kg)	0.413	Measured 1g SAR (W/kg)	0.947	Measured 1g SAR (W/kg)	0.966
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 140)	0.667	Auto-tune (State 32)	1.030	Auto-tune (State 99)	1.090
Default (State 0)	0.611	Default (State 32)	0.967	Default (State 0)	0.842
State 19	0.391	State 20	0.083	State 21	0.104
State 56	0.501	State 32	0.967	State 51	0.165
State 95	0.011	State 52	0.135	State 54	0.145
State 115	0.485	State 55	0.123	State 97	1.060
State 129	0.331	State 96	0.960	State 99	1.050
State 132	0.611	State 114	0.161	State 113	0.182
State 140	0.674	State 131	0.953	State 130	0.933

Table 15-5
LTE Supplemental Body SAR Data

Supplemental Body SAR Data													
LTE B71		LTE B12		LTE B13		LTE B14		LTE B26		LTE B66		LTE B25	
QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 25 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 36 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 25 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 25 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	782.00	Frequency (MHz)	831.50	Frequency (MHz)	1770.00	Frequency (MHz)	1905.00
Channel	133297	Channel	23095	Channel	23230	Channel	23230	Channel	26865	Channel	132572	Channel	26590
Measured 1g SAR (W/kg)	0.307	Measured 1g SAR (W/kg)	0.364	Measured 1g SAR (W/kg)	0.443	Measured 1g SAR (W/kg)	0.426	Measured 1g SAR (W/kg)	0.408	Measured 1g SAR (W/kg)	1.000	Measured 1g SAR (W/kg)	0.960
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 66)	0.509	Auto-tune (State 134)	0.609	Auto-tune (State 0)	0.716	Auto-tune (State 0)	0.702	Auto-tune (State 140)	0.681	Auto-tune (State 135)	1.090	Auto-tune (State 96)	1.050
Default (State 0)	0.486	Default (State 0)	0.509	Default (State 0)	0.713	Default (State 0)	0.735	Default (State 0)	0.711	Default (State 32)	1.110	Default (State 0)	0.805
State 25	0.102	State 26	0.082	State 0	0.713	State 0	0.735	State 30	0.030	State 29	0.029	State 24	0.084
State 33	0.197	State 34	0.274	State 27	0.154	State 28	0.092	State 38	0.711	State 31	0.014	State 32	0.999
State 50	0.271	State 49	0.371	State 35	0.360	State 36	0.486	State 45	0.057	State 39	1.020	State 40	0.881
State 66	0.496	State 102	0.262	State 48	0.458	State 47	0.018	State 46	0.027	State 44	0.711	State 43	0.712
State 101	0.238	State 108	0.037	State 103	0.401	State 104	0.487	State 104	0.601	State 103	1.08	State 96	1.07
State 109	0.029	State 125	0.045	State 107	0.104	State 106	0.278	State 106	0.282	State 107	0.97	State 102	1.01
State 126	0.030	State 134	0.590	State 124	0.095	State 123	0.254	State 121	0.456	State 120	0.143	State 108	0.719
State 135	0.157	State 136	0.363	State 137	0.455	State 138	0.660	State 140	0.681	State 135	1.11	State 119	0.152

Table 15-6
NR Supplemental Body SAR Data

Supplemental Body SAR Data						Supplemental Body SAR Data					
NR Band n71		NR Band n12		NR Band n26		NR Band n70		NR Band n66		NR Band n25	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 104 RB Offset		DFT-s-OFDM QPSK, 15 MHz Bandwidth, 36 RB, 22 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		CP-OFDM QPSK, 15 MHz Bandwidth, 1 RB, 1 RB Offset		CP-OFDM QPSK, 40 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 40 MHz Bandwidth, 216 RB, 0 RB Offset	
Test Position	Right	Test Position	Back	Test Position	Back	Test Position	Bottom	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	831.50	Frequency (MHz)	1702.50	Frequency (MHz)	1745.00	Frequency (MHz)	1882.50
Channel	136100	Channel	141500	Channel	166300	Channel	340500	Channel	349000	Channel	376500
Measured 1g SAR (W/kg)	0.261	Measured 1g SAR (W/kg)	0.335	Measured 1g SAR (W/kg)	0.449	Measured 1g SAR (W/kg)	0.878	Measured 1g SAR (W/kg)	0.972	Measured 1g SAR (W/kg)	0.964
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 134)	0.382	Auto-tune (State 134)	0.559	Auto-tune (State 140)	0.734	Auto-tune (State 32)	0.992	Auto-tune (State 32)	1.080	Auto-tune (State 97)	1.110
Default (State 0)	0.418	Default (State 0)	0.493	Default (State 0)	0.722	Default (State 32)	0.972	Default (State 32)	1.090	Default (State 0)	0.783
State 23	0.141	State 22	0.173	State 10	0.328	State 5	0.753	State 4	0.771	State 3	0.719
State 33	0.148	State 34	0.232	State 33	0.650	State 32	0.972	State 32	1.090	State 37	0.929
State 42	0.041	State 41	0.077	State 42	0.317	State 35	0.909	State 36	1.030	State 45	0.926
State 101	0.176	State 100	0.252	State 96	0.307	State 40	0.836	State 39	0.988	State 97	1.060
State 109	0.018	State 110	0.013	State 109	0.044	State 99	0.792	State 98	0.962	State 113	0.175
State 118	0.254	State 117	0.329	State 118	0.577	State 111	0.546	State 112	0.196	State 114	0.173
State 134	0.381	State 134	0.549	State 140	0.742	State 116	0.203	State 115	0.189	State 139	0.187

15.2 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear. When ULCA is active, the linearity between the Power Class 2 with ULCA active and Power Class 3 with ULCA active SAR results and the respective frame averaged powers was calculated to determine that the results were linear. Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

Table 15-7
LTE Band 41 Head Linearity Data – Antenna B

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.70
Measured Output Power (dBm)	24.17	25.64
Measured SAR (W/kg)	0.105	0.093
Measured Power (mW)	261.22	366.44
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	165.35	158.67
% deviation from expected linearity		-7.70%

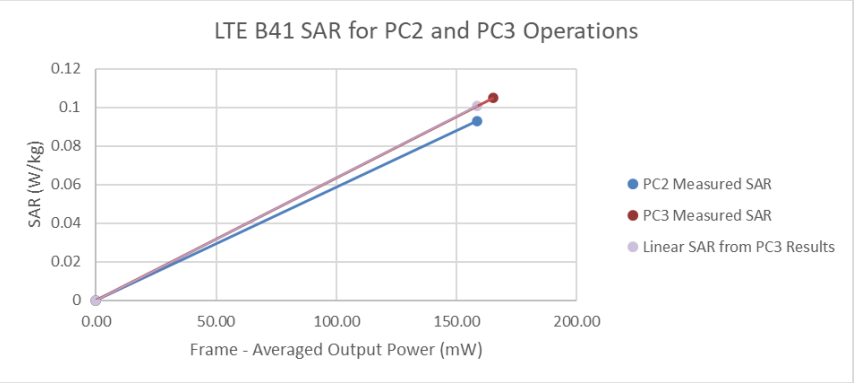


Figure 15-1
LTE Band 41 Head Linearity - Antenna B

Table 15-8
LTE Band 41 ULCA Head Linearity Data – Antenna B

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	26.70
Measured Output Power (dBm)	24.09	25.85
Measured SAR (W/kg)	0.098	0.096
Measured Power (mW)	256.45	384.59
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	162.33	166.53
% deviation from expected linearity		-4.51%

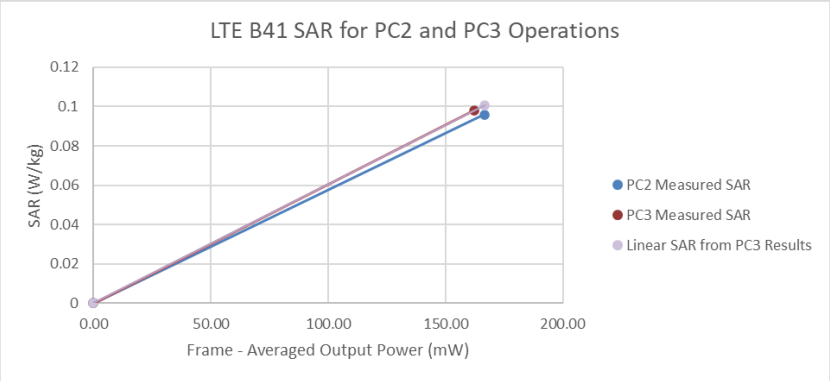


Figure 15-2
LTE Band 41 ULCA Head Linearity – Antenna B

Table 15-9
LTE Band 41 Head Linearity Data – Antenna F

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.90	20.54
Measured SAR (W/kg)	0.883	0.883
Measured Power (mW)	77.62	113.24
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	49.14	49.03
% deviation from expected linearity		0.21%

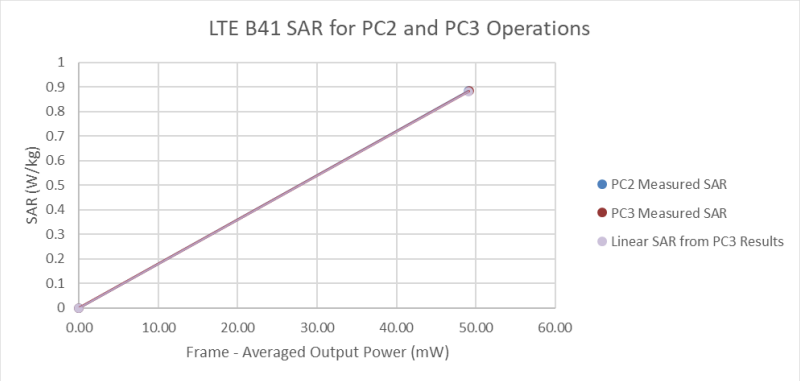


Figure 15-3
LTE Band 41 Head Linearity - Antenna F

Table 15-10
LTE Band 41 ULCA Head Linearity Data – Antenna F

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	19.50	21.10
Measured Output Power (dBm)	18.81	20.51
Measured SAR (W/kg)	0.866	0.833
Measured Power (mW)	76.03	112.46
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	48.13	48.70
% deviation from expected linearity		-4.93%

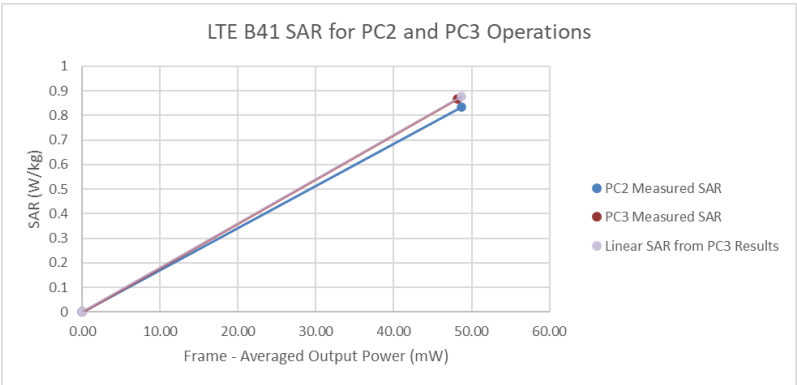


Figure 15-4
LTE Band 41 ULCA Head Linearity – Antenna F

Table 15-11
LTE Band 41 Hotspot Linearity Data – Antenna B

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.50	24.10
Measured Output Power (dBm)	21.63	23.13
Measured SAR (W/kg)	0.472	0.451
Measured Power (mW)	145.55	205.59
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	92.13	89.02
% deviation from expected linearity		-1.11%

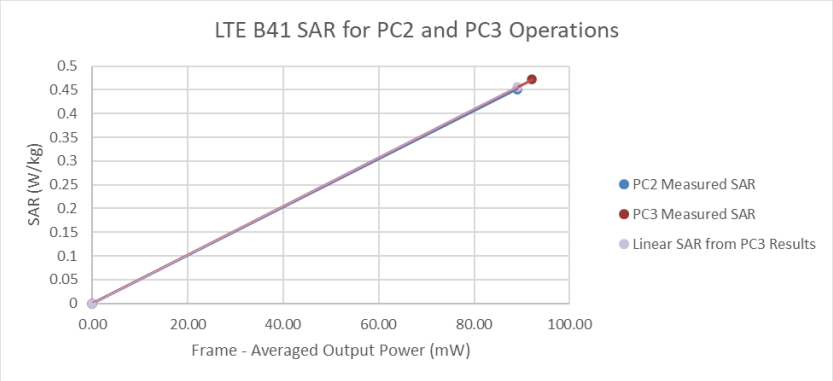


Figure 15-5
LTE Band 41 Hotspot Linearity – Antenna B

Table 15-12
LTE Band 41 ULCA Hotspot Linearity Data – Antenna B

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.50	24.10
Measured Output Power (dBm)	21.49	23.20
Measured SAR (W/kg)	0.445	0.431
Measured Power (mW)	140.93	208.93
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	89.21	90.47
% deviation from expected linearity		-4.49%

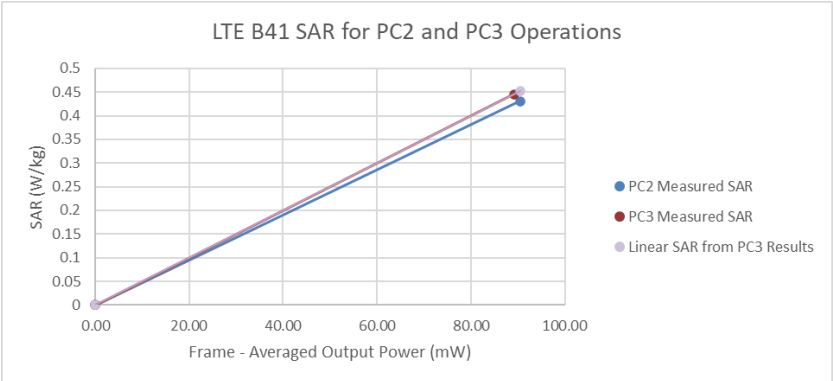


Figure 15-6
LTE Band 41 ULCA Hotspot Linearity – Antenna B

Table 15-13
LTE Band 41 Hotspot Linearity Data – Antenna F

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.50	24.10
Measured Output Power (dBm)	21.04	22.66
Measured SAR (W/kg)	0.552	0.531
Measured Power (mW)	127.06	184.50
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	80.43	79.89
% deviation from expected linearity		-3.16%

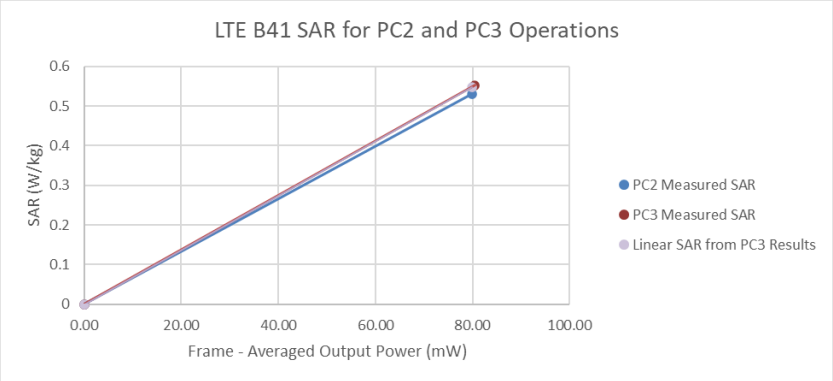


Figure 15-7
LTE Band 41 Hotspot Linearity – Antenna F

Table 15-14
LTE Band 41 ULCA Hotspot Linearity Data – Antenna F

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.50	24.10
Measured Output Power (dBm)	20.95	22.61
Measured SAR (W/kg)	0.544	0.538
Measured Power (mW)	124.45	182.39
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	78.78	78.97
% deviation from expected linearity		-1.35%

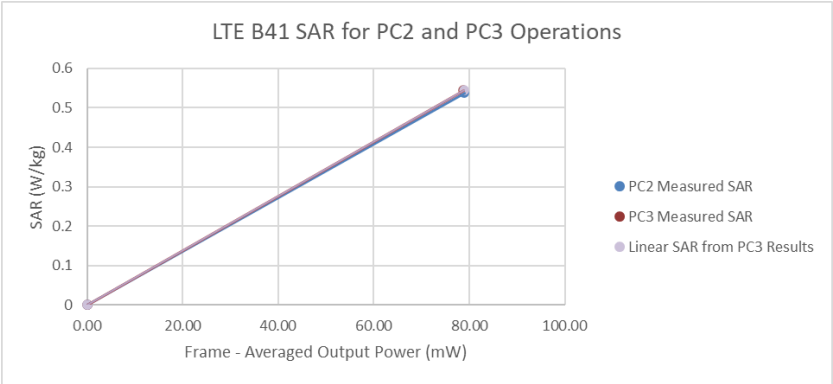


Figure 15-8
LTE Band 41 ULCA Hotspot Linearity – Antenna F

16 EQUIPMENT LIST

Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
E4404B	Spectrum Analyzer	N/A	N/A	N/A	MY45113242
E4438C	ESG Vector Signal Generator	11/17/2022	Annual	11/17/2023	MY45093852
E4438C	ESG Vector Signal Generator	11/17/2022	Annual	11/17/2023	MY45092078
NS182A	MXG Vector Signal Generator	7/4/2023	Annual	7/4/2024	MY48180366
SMW200A	Vector Signal Generator	7/5/2023	Triennial	7/5/2025	107818
NS182A	MXG Vector Signal Generator	11/30/2022	Annual	11/30/2023	MY47420603
8753ES	S-Parameter Vector Network Analyzer	1/12/2023	Annual	1/12/2024	MY46001472
8753ES	S-Parameter Vector Network Analyzer	6/2/2023	Annual	6/2/2024	MY46003841
ESS15C	Wireless Communications Test Set	CBT	N/A	CBT	US41140256
ESS15C	Wireless Communications Test Set	4/19/2022	Biennial	4/19/2024	GB43193591
N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
15S1G6	Amplifier	CBT	N/A	CBT	433973
15S1G6	Amplifier	CBT	N/A	CBT	433974
150A100C	Amplifier	CBT	N/A	CBT	350132
NRA8110B	I/O Adaptor	CBT	N/A	CBT	6263747881
ML2496A	Power Meter	6/15/2023	Annual	6/15/2024	1138001
ML2495A	Power Meter	6/13/2023	Annual	6/13/2024	1039008
MA2411B	Pulse Power Sensor	8/22/2023	Annual	8/22/2024	1726262
MA2411B	Pulse Power Sensor	1/10/2023	Annual	1/10/2024	1339026
MT8821C	Radio Communication Analyzer MT8821C	1/10/2023	Annual	1/10/2024	6201524637
MT8821C	Radio Communication Analyzer MT8821C	11/28/2022	Annual	11/28/2023	6262150047
MT8821C	Radio Communication Analyzer MT8821C	7/7/2023	Annual	7/7/2024	6262044715
MT8821C	Radio Communication Analyzer MT8821C	1/20/2023	Annual	1/20/2024	6201144419
MT8000A	Radio Communication Test Station	3/21/2023	Annual	3/21/2024	6261987983
MT8000A	Radio Communication Test Station	1/5/2023	Annual	1/5/2024	6272337436
MT8000A	Radio Communication Test Station	4/6/2023	Annual	4/6/2024	6272337439
MA24106A	USB Power Sensor	6/15/2023	Annual	6/15/2024	1827530
MA24106A	USB Power Sensor	4/21/2023	Annual	4/21/2024	1344554
PWR-4GHS	USB Power Sensor	11/11/2022	Annual	11/11/2023	11730030063
4040 90080-06	Therm./ Clock/ Humidity Monitor	5/11/2022	Biennial	5/11/2024	221514974
4040 90080-06	Therm./ Clock/ Humidity Monitor	5/11/2022	Biennial	5/11/2024	221514925
4040	Therm./ Clock/ Humidity Monitor	1/17/2023	Annual	1/17/2024	160574418
4353	Long Stem Thermometer	11/12/2021	Biennial	11/12/2023	210074908
4353	Long Stem Thermometer	10/21/2022	Annual	10/21/2023	200645912
4353	Long Stem Thermometer	9/15/2022	Biennial	9/15/2024	221767767
500-196-30	CD-6"ASX 6inch Digital Caliper	2/16/2022	Triennial	2/16/2025	A20238413
N6705B	DC Power Analyzer	5/5/2021	Triennial	5/5/2024	MY53004059
N9020A	MXA Signal Analyzer	4/6/2023	Annual	4/6/2024	MY48010233
N9020A	MXA Signal Analyzer	4/26/2022	Biennial	4/26/2024	MY56470202
BW-N6W5+	6dB Attenuator	CBT	N/A	CBT	1139
VLF-6000+	Low Pass Filter DC to 6000 MHz	CBT	N/A	CBT	N/A
VLF-6000+	Low Pass Filter DC to 6000 MHz	7/5/2023	Annual	7/5/2024	31634
BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
ZUDC10-83-S+	Directional Coupler	CBT	N/A	CBT	2050
4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
742-0-0-21	Torque Wrench	11/29/2022	Biennial	11/29/2024	94722
TSF-100	Torque Wrench	6/30/2023	Annual	6/30/2024	47639-29
CMW500	Wideband Radio Communication Tester	1/12/2023	Annual	1/12/2024	131453
CMW500	Wideband Radio Communication Tester	7/4/2023	Annual	7/4/2024	166818
CMW500	Wideband Radio Communication Tester	2/9/2023	Annual	2/9/2024	161617
CMW500	Wideband Radio Communication Tester	1/17/2023	Annual	1/17/2024	151849
DAK-3.5	Dielectric Assessment Kit	11/14/2022	Annual	11/14/2023	1277
DAKS-3.5	Portable Dielectric Assessment Kit	8/14/2023	Annual	8/14/2024	1041
MAIA	Modulation and Audio Interference Analyzer	N/A	N/A	N/A	1237
MAIA	Modulation and Audio Interference Analyzer	N/A	N/A	N/A	1331
MAIA	Modulation and Audio Interference Analyzer	N/A	N/A	N/A	1390
DAK-12	Dielectric Assessment Kit (4MHz - 3GHz)	3/13/2023	Annual	3/13/2024	1102
CLA-13	Confined Loop Antenna	9/12/2023	Annual	9/12/2024	1002
D750V3	750 MHz SAR Dipole	2/13/2023	Annual	2/13/2024	1046
D750V3	750 MHz SAR Dipole	5/11/2023	Annual	5/11/2024	1003
D835V2	835 MHz SAR Dipole	4/13/2023	Annual	4/13/2024	4d119
D835V2	835 MHz SAR Dipole	5/11/2023	Annual	5/11/2024	4d180
D835V2	835 MHz SAR Dipole	4/13/2023	Annual	4/13/2024	4d119
D1750V2	1750 MHz SAR Dipole	4/19/2023	Annual	4/19/2024	1051
D1750V2	1750 MHz SAR Dipole	1/18/2022	Biennial	1/18/2024	1148
D1750V2	1750 MHz SAR Dipole	10/22/2021	Biennial	10/22/2023	1150
D1765V2	1750 MHz SAR Dipole	5/14/2021	Triennial	5/14/2024	1008
D1900V2	1900 MHz SAR Dipole	8/8/2023	Annual	8/8/2024	5d180
D1900V2	1900 MHz SAR Dipole	9/7/2023	Annual	9/7/2024	5d181
D1900V2	1900 MHz SAR Dipole	2/21/2022	Biennial	2/21/2024	5d148
D2300V2	2300 MHz SAR Dipole	11/10/2020	Triennial	11/10/2023	1064
D2300V2	2300 MHz SAR Dipole	6/3/2021	Triennial	6/3/2024	1116
D2450V2	2450 MHz SAR Dipole	11/25/2021	Biennial	11/25/2023	981
D2450V2	2450 MHz SAR Dipole	5/11/2023	Annual	5/11/2024	945
D2450V2	2450 MHz SAR Dipole	5/11/2022	Biennial	5/11/2024	750
D2600V2	2600 MHz SAR Dipole	5/11/2022	Biennial	5/11/2024	1042
D2600V2	2600 MHz SAR Dipole	6/12/2023	Annual	6/12/2024	1009
D2600V2	2600 MHz SAR Dipole	4/14/2021	Triennial	4/14/2024	1004
D3500V2	3500 MHz SAR Dipole	6/9/2021	Triennial	6/9/2024	1126
D3500V2	3500 MHz SAR Dipole	1/19/2021	Triennial	1/19/2024	1059
D3500V2	3500 MHz SAR Dipole	8/17/2022	Biennial	8/17/2024	1055
D3700V2	3700 MHz SAR Dipole	1/13/2023	Annual	1/13/2024	1067
D3700V2	3700 MHz SAR Dipole	6/9/2021	Triennial	6/9/2024	1097
D3700V2	3700 MHz SAR Dipole	10/21/2022	Annual	10/21/2023	1002
D3900V2	3900 MHz SAR Dipole	11/13/2020	Triennial	11/13/2023	1062
D5GHzV2	5 GHz SAR Dipole	1/18/2023	Annual	1/18/2024	1191
D6.5GHzV2	6.5 GHz SAR Dipole	12/7/2022	Annual	12/7/2023	1018
D8GHzV2	8 GHz SAR Dipole	5/11/2023	Annual	5/11/2024	1006
5G Verification Source 10GHz	10GHz System Verification Antenna	8/11/2023	Annual	8/11/2024	1004
DAE4	Dasy Data Acquisition Electronics	1/17/2023	Annual	1/17/2024	1558
DAE4	Dasy Data Acquisition Electronics	2/15/2023	Annual	2/15/2024	1403
DAE4	Dasy Data Acquisition Electronics	6/27/2023	Annual	6/27/2024	1502
DAE4	Dasy Data Acquisition Electronics	3/15/2023	Annual	3/15/2024	604
DAE4	Dasy Data Acquisition Electronics	9/6/2023	Annual	9/6/2024	1364
DAE4	Dasy Data Acquisition Electronics	12/13/2022	Annual	12/13/2023	1644
DAE4	Dasy Data Acquisition Electronics	2/15/2023	Annual	2/15/2024	665
DAE4	Dasy Data Acquisition Electronics	3/16/2023	Annual	3/16/2024	1652
DAE4	Dasy Data Acquisition Electronics	2/16/2023	Annual	2/16/2024	1645
DAE4	Dasy Data Acquisition Electronics	6/15/2023	Annual	6/15/2024	1334
DAE4	Dasy Data Acquisition Electronics	3/13/2023	Annual	3/13/2024	1408
DAE4	Dasy Data Acquisition Electronics	6/15/2023	Annual	6/15/2024	1532
DAE4	Dasy Data Acquisition Electronics	4/14/2023	Annual	4/14/2024	1368
DAE4	Dasy Data Acquisition Electronics	5/11/2023	Annual	5/11/2024	728
DAE4	Dasy Data Acquisition Electronics	1/18/2023	Annual	1/18/2024	1530
DAE4	Dasy Data Acquisition Electronics	4/14/2023	Annual	4/14/2024	1407
DAE4	Dasy Data Acquisition Electronics	10/13/2022	Annual	10/13/2023	1333
DAE4	Dasy Data Acquisition Electronics	10/17/2022	Annual	10/17/2023	1322
DAE4	Dasy Data Acquisition Electronics	4/14/2023	Annual	4/14/2024	501
EX3DV4	SAR Probe	3/16/2023	Annual	3/16/2024	7421
EX3DV4	SAR Probe	1/17/2023	Annual	1/17/2024	7713
EX3DV4	SAR Probe	9/12/2023	Annual	9/12/2024	7558
EX3DV4	SAR Probe	6/15/2023	Annual	6/15/2024	7409
EX3DV4	SAR Probe	6/14/2023	Annual	6/14/2024	7661
EX3DV4	SAR Probe	5/10/2023	Annual	5/10/2024	7402
EX3DV4	SAR Probe	3/16/2023	Annual	3/16/2024	7638
EX3DV4	SAR Probe	3/16/2023	Annual	3/16/2024	7637
EX3DV4	SAR Probe	4/14/2023	Annual	4/14/2024	7659
EX3DV4	SAR Probe	4/18/2023	Annual	4/18/2024	7718
EX3DV4	SAR Probe	2/8/2023	Annual	2/8/2024	7417
EX3DV4	SAR Probe	2/13/2023	Annual	2/13/2024	7427
EX3DV4	SAR Probe	6/8/2023	Annual	6/8/2024	7491
EX3DV4	SAR Probe	2/10/2023	Annual	2/10/2024	7640
EX3DV4	SAR Probe	1/11/2023	Annual	1/11/2024	7570
EX3DV4	SAR Probe	12/9/2022	Annual	12/9/2023	7490
EX3DV4	SAR Probe	10/20/2022	Annual	10/20/2023	7420
EX3DV4	SAR Probe	10/19/2022	Annual	10/19/2023	7547
EX3DV4	SAR Probe	4/18/2023	Annual	4/18/2024	7532
EUmmWV4	EUmmWV4 Probe	2/15/2023	Annual	2/15/2024	9622
EUmmWV4	EUmmWV4 Probe	5/19/2023	Annual	5/19/2024	9541

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.
Note: All equipment was used solely within its respective calibration period.

17 MEASUREMENT UNCERTAINTIES

Applicable for SAR measurements < 6GHz:

a	b	c	d	e= f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	IEEE 1528 Sec.	Tol. (± %)	Prob. Dist.	Div.	c_i 1gm	c_i 10 gms	1gm u_i (± %)	10gms u_i (± %)	v_i
Measurement System									
Probe Calibration	E.2.1	7	N	1	1	1	7.0	7.0	∞
Axial Isotropy	E.2.2	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	E.2.2	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	E.2.3	2	R	1.73	1	1	1.2	1.2	∞
Linearity	E.2.4	0.3	N	1	1	1	0.3	0.3	∞
System Detection Limits	E.2.4	0.25	R	1.73	1	1	0.1	0.1	∞
Modulation Response	E.2.5	4.8	R	1.73	1	1	2.8	2.8	∞
Readout Electronics	E.2.6	0.3	N	1	1	1	0.3	0.3	∞
Response Time	E.2.7	0.8	R	1.73	1	1	0.5	0.5	∞
Integration Time	E.2.8	2.6	R	1.73	1	1	1.5	1.5	∞
RF Ambient Conditions - Noise	E.6.1	3	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	3	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.8	R	1.73	1	1	0.5	0.5	∞
Probe Positioning w/ respect to Phantom	E.6.3	6.7	R	1.73	1	1	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	E.5	4	R	1.73	1	1	2.3	2.3	∞
Test Sample Related									
Test Sample Positioning	E.4.2	3.12	N	1	1	1	3.1	3.1	35
Device Holder Uncertainty	E.4.1	1.67	N	1	1	1	1.7	1.7	5
Output Power Variation - SAR drift measurement	E.2.9	5	R	1.73	1	1	2.9	2.9	∞
SAR Scaling	E.6.5	0	R	1.73	1	1	0.0	0.0	∞
Phantom & Tissue Parameters									
Phantom Uncertainty (Shape & Thickness tolerances)	E.3.1	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	E.3.3	4.3	N	1	0.78	0.71	3.3	3.0	76
Liquid Permittivity - measurement uncertainty	E.3.3	4.2	N	1	0.23	0.26	1.0	1.1	75
Liquid Conductivity - Temperature Uncertainty	E.3.4	3.4	R	1.73	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	E.3.4	0.6	R	1.73	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	E.3.2	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)			RSS				12.2	12.0	191
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				24.4	24.0	

The above measurement uncertainties are according to IEEE Std. 1528-2013

Applicable for SAR measurements > 6GHz:

a	b	c	d	e= f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	IEEE 1528 Sec.	Tol. (± %)	Prob. Dist.	Div.	c_i 1gm	c_i 10 gms	1gm u_i (± %)	10gms u_i (± %)	v_i
Measurement System									
Probe Calibration	E.2.1	9.3	N	1	1	1	9.3	9.3	∞
Axial Isotropy	E.2.2	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	E.2.2	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	E.2.3	2	R	1.73	1	1	1.2	1.2	∞
Linearity	E.2.4	0.3	N	1	1	1	0.3	0.3	∞
System Detection Limits	E.2.4	0.25	R	1.73	1	1	0.1	0.1	∞
Modulation Response	E.2.5	4.8	R	1.73	1	1	2.8	2.8	∞
Readout Electronics	E.2.6	0.3	N	1	1	1	0.3	0.3	∞
Response Time	E.2.7	0.8	R	1.73	1	1	0.5	0.5	∞
Integration Time	E.2.8	2.6	R	1.73	1	1	1.5	1.5	∞
RF Ambient Conditions - Noise	E.6.1	3	R	1.73	1	1	1.7	1.7	∞
RF Ambient Conditions - Reflections	E.6.1	3	R	1.73	1	1	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	E.6.2	0.8	R	1.73	1	1	0.5	0.5	∞
Probe Positioning w/ respect to Phantom	E.6.3	6.7	R	1.73	1	1	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	E.5	4	R	1.73	1	1	2.3	2.3	∞
Test Sample Related									
Test Sample Positioning	E.4.2	3.12	N	1	1	1	3.1	3.1	35
Device Holder Uncertainty	E.4.1	1.67	N	1	1	1	1.7	1.7	5
Output Power Variation - SAR drift measurement	E.2.9	5	R	1.73	1	1	2.9	2.9	∞
SAR Scaling	E.6.5	0	R	1.73	1	1	0.0	0.0	∞
Phantom & Tissue Parameters									
Phantom Uncertainty (Shape & Thickness tolerances)	E.3.1	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	E.3.3	4.3	N	1	0.78	0.71	3.3	3.0	76
Liquid Permittivity - measurement uncertainty	E.3.3	4.2	N	1	0.23	0.26	1.0	1.1	75
Liquid Conductivity - Temperature Uncertainty	E.3.4	3.4	R	1.73	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	E.3.4	0.6	R	1.73	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	E.3.2	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)			RSS				13.8	13.6	191
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				27.6	27.1	

The above measurement uncertainties are according to IEEE Std. 1528-2013

Applicable for Power Density Measurements:

a	b	c	d	e	f = c x f/e	g
Uncertainty Component	Unc. (± dB)	Prob. Dist.	Div.	c_i	u_i (± dB)	v_i
Measurement System						
Calibration	0.49	N	1	1	0.49	∞
Probe Correction	0.00	R	1.73	1	0.00	∞
Frequency Response	0.20	R	1.73	1	0.12	∞
Sensor Cross Coupling	0.00	R	1.73	1	0.00	∞
Isotropy	0.50	R	1.73	1	0.29	∞
Linearity	0.20	R	1.73	1	0.12	∞
Probe Scattering	0.00	R	1.73	1	0.00	∞
Probe Positioning offset	0.30	R	1.73	1	0.17	∞
Probe Positioning Repeatability	0.04	R	1.73	1	0.02	∞
Sensor MechanicalOffset	0.00	R	1.73	1	0.00	∞
Probe Spatial Resolution	0.00	R	1.73	1	0.00	∞
Field Impedence Dependance	0.00	R	1.73	1	0.00	∞
Amplitude and Phase Drift	0.00	R	1.73	1	0.00	∞
Amplitude and Phase Noise	0.04	R	1.73	1	0.02	∞
Measurement Area Truncation	0.00	R	1.73	1	0.00	∞
Data Acquisition	0.03	N	1	1	0.03	∞
Sampling	0.00	R	1.73	1	0.00	∞
Field Reconstruction	2.00	R	1.73	1	1.15	∞
Forward Transformation	0.00	R	1.73	1	0.00	∞
Power Density Scaling	0.00	R	1.73	1	0.00	∞
Spatial Averaging	0.10	R	1.73	1	0.06	∞
System Detection Limit	0.04	R	1.73	1	0.02	∞
Test Sample Related						
Probe Coupling with DUT	0.00	R	1.73	1	0.00	∞
Modulation Response	0.40	R	1.73	1	0.23	∞
Integration Time	0.00	R	1.73	1	0.00	∞
Response Time	0.00	R	1.73	1	0.00	∞
Device Holder Influence	0.10	R	1.73	1	0.06	∞
DUT alignment	0.00	R	1.73	1	0.00	∞
RF Ambient Conditions	0.04	R	1.73	1	0.02	∞
Ambient Reflections	0.04	R	1.73	1	0.02	∞
Immunity/Secondary Reception	0.00	R	1.73	1	0.00	∞
Drift of DUT	0.21	R	1.73	1	0.12	∞
Combined Standard Uncertainty (k=1)		RSS			1.34	∞
Expanded Uncertainty (95% CONFIDENCE LEVEL)		k=2			2.68	

18 CONCLUSION

18.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

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